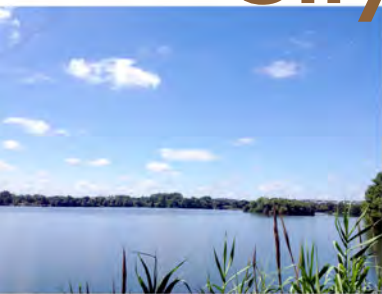


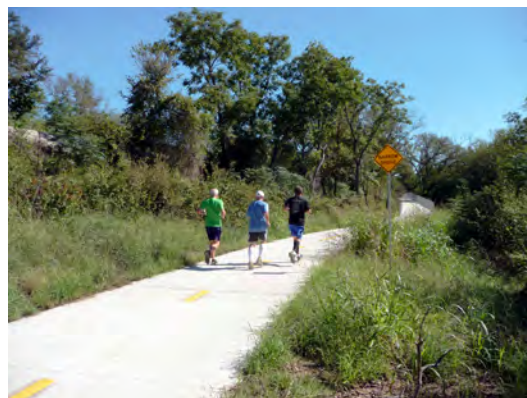
City of Austin Urban Trails Master Plan



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City of Austin Urban Trails Master Plan



WORKING DRAFT FOR REVIEW AND DISCUSSION
APRIL 2014





AUSTIN URBAN TRAILS MASTER PLAN

FOREWORD

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AUSTIN URBAN TRAILS MASTER PLAN

April 21, 2014

Chad Crager, Acting Bicycle and Urban Trails Program Manager
City of Austin, Public Works Department
505 Barton Springs Road
Austin, Texas 78704

Re: Draft - City of Austin Urban Trails Master Plan

Dear Mr. Crager:

Halff Associates Inc. is pleased to submit this draft report for the Austin Urban Trails Master Plan. This report strives to capture the many observations and findings developed as part of the planning process, and to match those to the desires and expectations of the citizens of Austin. The plan's recommendations seek to improve the condition of walking and bicycling in Austin by creating a citywide system of interconnected off-street urban trails that complements and contributes to the active transportation network.

As in any comprehensive analysis, this document contains many recommendations that are prioritized over time. Many of the plan's actions are immediate in nature and can be developed as funding becomes available, while others can be developed in conjunction with ongoing development. The plan encourages collaboration among departments and agencies across the City to leverage funding and implementation opportunities. Finally, there are also long-term actions that may not be funded for some time, but that are included to ensure that they remain present in the City's planning for the future and are considered as new funding sources become available.

Ultimately, this plan stresses that citizens of Austin desire to create a sustainable city by planning for active transportation and providing ample recreation opportunities. As an important component of a community's infrastructure, Urban Trails can transform Austin and reinforce the City's position as one of the best places to live in the nation. We greatly appreciate the opportunity to have worked with you, your staff, and the citizens of Austin.

Sincerely,

Halff Associates Inc.

Jim Carrillo, FAICP, ASLA
Vice President, Director of Planning

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ACKNOWLEDGEMENTS

The Austin Urban Trails Master Plan would not have been possible without the feedback, input and support provided by Austin's citizens. We'd like to thank all participants in the planning process, other interested individuals who gave their feedback on this planning effort, and members of City staff who made themselves available to answer technical questions and provide information on specific topics related to this master plan.

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EXECUTIVE SUMMARY

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AUSTIN URBAN TRAILS MASTER PLAN

EXECUTIVE SUMMARY

THE PURPOSE OF THIS MASTER PLAN

A comprehensive Urban Trails plan is needed to create a streamlined, accessible process for Urban Trail development. Whether an Urban Trail project is initiated by the City, a non-profit, a private developer or a neighborhood association, a comprehensive, Urban Trails Master Plan will provide an easy-to-understand guidebook, ensure consistent quality and establish a calculated, cohesive network.

This long range plan envisions a system of Urban Trails that connects all of Austin by allowing residents to go from one end of the City to the other in a safe and healthy way. The Urban Trails network is intended to work in conjunction with the on-street pedestrian and bicycle networks, giving residents the opportunity to use active transportation to travel greater distances across all parts of Austin and creating a true “8 to 80” network, where an 8 year old child can walk or ride with an 80 year old. The Urban Trails network is also intended to provide access to scenic recreation corridors throughout the built environment of the City. The master plan:

- ◆ Discusses relevant policies and plans that led to and impact this plan;
- ◆ Outlines guidelines for Urban Trail design standards;
- ◆ Identifies which of the existing trails in Austin should be designated as Urban Trails; and
- ◆ Incorporates recommendations for future expansion of the Urban Trails network throughout the City.

The Urban Trails Master Plan directly supports all eight of the priority programs as identified in *Imagine Austin*, the City’s Comprehensive Plan. The eight priority programs described in *Imagine Austin* are intended to provide structure and direction for the actions recommended in *Imagine Austin*, and this plan and its related policies directly follow the vision and guidelines set forth in the comprehensive plan. As an amendment to the *Imagine Austin* Plan, this plan also serves as a regulatory plan within City of Austin jurisdiction.

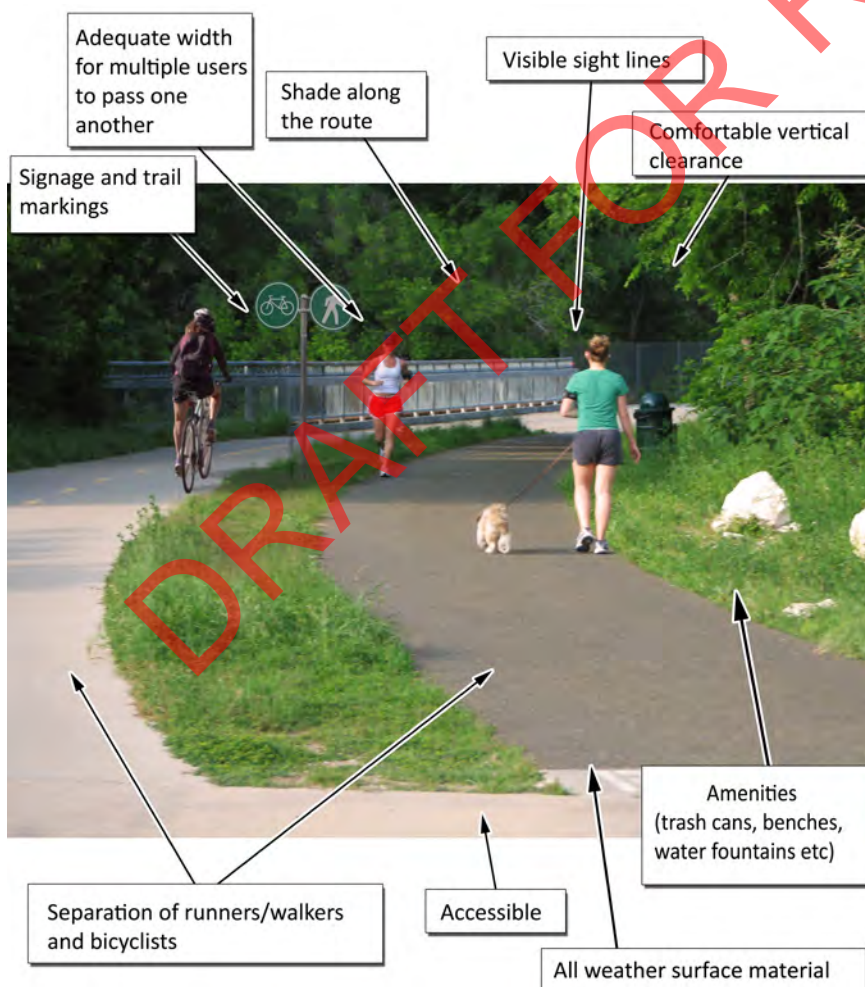
This plan is intended to be flexible and remain a viable tool as Austin continues to grow and change. The plan will continue to serve for many years, but should be periodically updated to reflect changing conditions within the City, the neighboring communities and the greater Central Texas area as a whole.

WHAT IS AN URBAN TRAIL?

The definition of an Urban Trail that was developed through this planning process follows the guidance and recommendations from *Imagine Austin*, and was confirmed by the Citizen Advisory Group (CAG) and the Technical Advisory Group (TAG). For the City of Austin, the Urban Trail network is defined as:

“A citywide network of non-motorized, multi-use pathways that are used by bicyclists, walkers and runners for both transportation and recreation purposes.”

Desired characteristics of an urban trail are shown in the illustration on this page.





AUSTIN URBAN TRAILS MASTER PLAN

URBAN TRAIL GOALS AND OBJECTIVES FOR AUSTIN

Goals and objectives for a plan such as this create the foundation for future decisions and development. Goals are an important part of the planning process in that they provide the underlying philosophical framework for decisions and also guide decision makers on issues. The goals expressed in this master plan reflect the desires of the citizens, elected and appointed officials, and the staff of the City of Austin, and build upon the vision established by the City's Comprehensive Plan. They are expressed as follows:



Texas Roller Girls on the Lance Armstrong Bikeway near Lamar Boulevard.

- ◆ Goal #1: Provide easy access to Urban Trails for both transportation and recreation users from all parts of the City.
- ◆ Goal #2: Link all Urban Trails to the on-street bicycle and sidewalk network around them.
- ◆ Goal #3: Ensure that all Urban Trails are adequately sized to accommodate both recreation and transportation uses.
- ◆ Goal #4: Incorporate trail amenities and features that transform them from a paved surface into unique greenways that reflect the City around them.

Between 2000 and 2010 the number of bicycle commuters grew 40% nationwide, according to the U.S. Census.

- ◆ Goal #5: Provide adequate funding and resources to maintain and operate urban trails in Austin.
- ◆ Goal #6: Ensure that all Urban Trails are context-sensitive and environmentally sustainable as well as preserve and improve upon wildlife habitat.

PUBLIC ENGAGEMENT

A detailed public input process was utilized to inform and engage the citizens about the Austin Urban Trails Master Plan and Bicycle Master Plan update. Since both plans work together to create the overall Active Transportation Network, the public input process for both was combined and occurred simultaneously. The wide variety of methods employed to gain public input included:

- ◆ A statistically valid citywide telephone survey (600 responses)
- ◆ A citywide online survey (2,400 responses),
- ◆ Trail intercept survey (conducted at 7 locations),
- ◆ Input from both a Citizens Advisory Group (CAG) and a Technical Advisory Group (TAG),
- ◆ Public meetings (6 meetings), and
- ◆ Online open house (conducted over two months)

We learned valuable information regarding attitudes towards riding a bicycle and interest in using Urban Trails:

- ◆ 41% of adults and 75% of kids ride bicycles in Austin.
- ◆ The majority of people in Austin want to ride more than they currently do.
- ◆ The majority of residents and current bicyclists are not as comfortable in a traditional bicycle lane but would feel very comfortable riding on a separated path.
- ◆ Residents of Austin are much more willing to ride a bicycle if there is some sort of separation between themselves and on-street traffic.
- ◆ The most important actions and improvements for Urban Trails are:
 - Improve access to trails from nearby neighborhoods or businesses,
 - Improve smoothness of trail,
 - Widen trail surface,

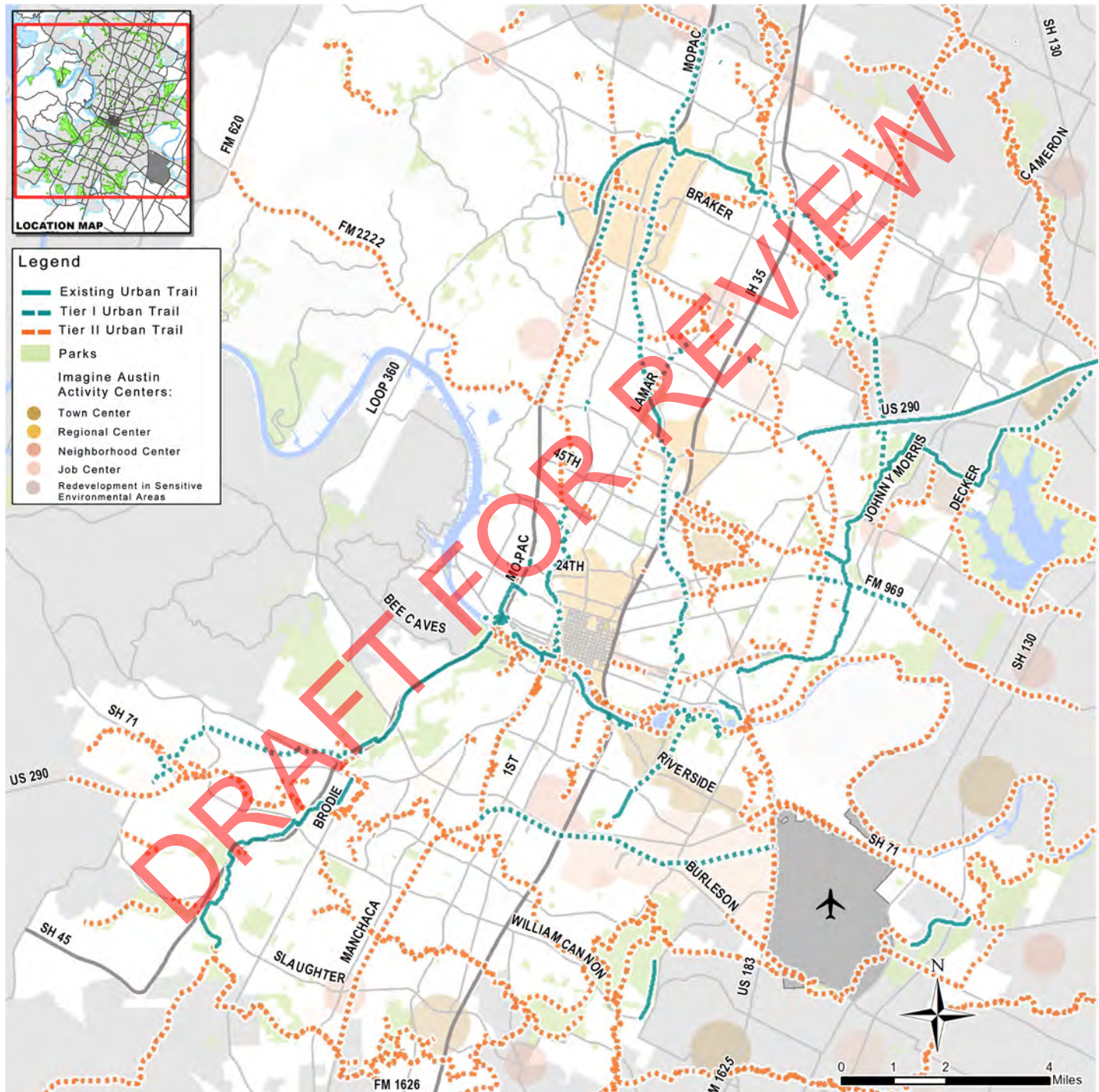


Open House participants give feedback on bicycle and urban trail recommendations



AUSTIN URBAN TRAILS MASTER PLAN

AUSTIN URBAN TRAILS



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a “no-build” option may be appropriate.

- Create separate areas for walkers and bicycle riders,
- Add lighting as appropriate,
- Provide more shade,
- Provide more drinking fountains, and
- Trim landscaping and obstructions to improve sight lines.

EXISTING AND RECOMMENDED URBAN TRAILS

The City currently has about 300 miles of trails of all types, and approximately 30 miles of these existing trails can be defined as Urban Trails because they serve both a transportation and recreational purpose. The Austin Urban Trails map on the previous page shows existing and recommended Urban Trails.

Austin has many opportunities to create a citywide network of Urban Trails, and over the next two to three decades, it is anticipated that many of these opportunities can be realized. However, the City's efforts should be focused on those corridors that provide the most significant, beneficial impact and that truly contribute to a cultural and habitual shift in how Austinites and visitors move throughout our city.

This plan identifies approximately 47 miles of Tier I, or high priority, Urban Trails (42 miles within the city limits). These trails are those that provide a strong potential for both transportation and recreational use, serve significant surrounding populations, enhance connections to the on-street bicycle and sidewalk network, and are sensitive to the existing environment along the corridors that are used. The ultimate goal of this plan is to design and construct the majority of the Tier I Urban Trails within approximately ten to fifteen years. Additional trail segments identified in the plan are considered Tier II Urban Trails, and may be undertaken in partnership with other agencies, non-profit entities, private development, or with re-development efforts.

POLICY CONSIDERATIONS

From the federal to local level, policies affect the integrity and mechanisms of the Urban Trails Master Plan. There are many new and developing planning initiatives in Austin, including CodeNEXT, the Sidewalk Master Plan, the Complete Streets Policy and the Wayfinding Project, which merit recognition and coordination of goals and operations. The Urban Trails Master Plan implements and incorporates recent policy changes that may impact the design, placement and funding opportunities for Urban Trails in Austin.

Policy and plans for consideration include:

- ◆ MAP-21



AUSTIN URBAN TRAILS MASTER PLAN

Goal: Improve the urban environment by fostering additional beneficial uses of waterways and drainage facilities.

Objective: Maximize the use of waterways and drainage facilities for public recreation; and, Maximize areas for public use within floodplains.

- Watershed Protection Department Master Plan Goals and Objectives

- ◆ FHWA Memorandum supporting NACTO and AASHTO bicycle design guidelines
- ◆ CAMPO 2035
- ◆ Imagine Austin
- ◆ Capital Improvement Plan
- ◆ Watershed Protection Ordinance
- ◆ Land Development Code
- ◆ Heritage Tree Ordinance
- ◆ Protected Tree Ordinance
- ◆ Austin Urban Forest Plan
- ◆ Technical Criteria Manuals - Environmental Criteria Manual, Drainage Criteria Manual, Transportation Criteria Manual
- ◆ Other adopted plans - Bicycle Plan, Sidewalk Master Plan, Parks and Recreation Long Range Facilities Plan for Land, Facilities and Programs, Downtown Austin Wayfinding Plan, Urban Forest Plan

Watershed Protection Ordinance

The new Watershed Protection Ordinance (WPO) was passed in October 2013 and provides important guidance for the Urban Trails Master Plan. The intent of the new ordinance is to protect area watersheds through clear policy and guidance. One of the Watershed Protection Department's goals is to improve the urban environment by maximizing use of waterways, drainage facilities and floodplain areas for public recreation. The Urban Trails Master Plan helps the Watershed Protection Ordinance achieve its goals by creating green infrastructure and reducing transportation pollution through the enhancement of non-motorized transportation.

PARTNERSHIPS WITH OTHER DEPARTMENTS AND AGENCIES

Interdepartmental and interagency collaborations are a critical component of developing a regional network of Urban Trails, and achieving the goals and objectives of this plan. Moreover, many federal-aid funding opportunities require cooperation among local and regional entities in developing and implementing goals. By partnering with other agencies and organizations, funding resources can be utilized more efficiently. Various City of Austin departments, including Parks and Recreation, Watershed Protection, the Austin Water Utility, Planning Development and Review, Transportation, and

Public Works, may all have an interest in Urban Trails from different perspectives and different funding opportunities. Private or nonprofit groups like The Trails Foundation or the Hill Country Conservancy also promote Urban Trails through different means. Collective efforts can make the legal, financial and political process of improving and expanding Austin's Urban Trail system more efficient.

Some recommendations in this plan will require partnerships and collaboration with other City departments, municipalities, agencies, and organizations across the region. The Public Works Department should coordinate with other City of Austin departments, agencies, and organizations where necessary to implement the Urban Trails Master Plan by identifying and pursuing funding partnerships and support from other departments, agencies, and organizations.

URBAN TRAIL MAINTENANCE

Effective trail maintenance is critical to the overall success and safety of Urban Trails in Austin. Maintenance activities typically include pavement stabilization, landscape maintenance, facility upkeep, sign replacement, mowing and litter removal. A successful maintenance program requires continuity. Routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trail. This plan includes operation recommendations for providing effective and appropriate trail maintenance.

The Parks and Recreation Department (PARD) retains the approval authority on all trails within parkland. PARD and the Public Works Department (PWD) have created written agreements regarding operation and maintenance responsibilities for trails to clarify duties and ensure adequate trail maintenance.

Upon adoption of the Urban Trails Master Plan staff will found an Interdepartmental Agreement (IDA) between the Parks and Recreation Department, Watershed Protection Department, Health and Human Services Department and other internal City departments as needed to create an over arching agreement regarding maintenance of Urban Trails. This IDA will address levels of responsibility and will define expectations, contacts and jurisdictions for maintenance.

CONSTRUCTING FUTURE URBAN TRAILS

This master plan identifies key Urban Trails and connections, as well as prioritizes these corridors based on the criteria developed through



AUSTIN URBAN TRAILS MASTER PLAN

the planning process. Once an Urban Trail corridor is selected for implementation, it then goes through a separate process of identifying the exact trail alignment. Implementation of an Urban Trail is based on:

- ◆ Funding
- ◆ Environmental Constraints
- ◆ Stakeholder/resident input

PRELIMINARY ENGINEERING REPORT (PER)

Once a funding source for Urban Trail development is identified, a Preliminary Engineering Report (PER) process is started. This PER process evaluates all the environmental constraints of the corridor including: topography, drainage, various soil types, tree canopy, wildlife habitat, floodplain, surrounding land uses, location of utilities, cultural assessments, critical environmental features, endangered species, property ownership, as well as several other elements. The entire length of the corridor will be reviewed by the Watershed Protection Department, the Parks and Recreation Department (including the Forestry Division), and the Planning and Development Review (PDR) Department to ensure that all current plans, policies, and standards are considered before the design process begins. A certified, independent wildlife biologist or ecologist will be part of the PER team for the purposes of ensuring that each alternative route accommodates the needs of local wildlife. Upon initiation of the PER process, the public, residents and area stakeholders will be engaged at a public open house to get feedback about the corridor, voice any concerns, identify specific goals/ outcomes of the project, and help identify potential access points. Once the PER process is complete, a secondary open house will be held to present the PER. Additional public meetings may be held as necessary. It is at this phase that a no- build option may also be appropriate and will be decided upon through a discussion with stakeholders, staff, and local representatives. The preferred alignment for the trail will then developed based on the identified constraints, opportunities, and public input.

DESIGN

The trail then goes into the process of design. This design process is iterative and interactive. It engages multiple city departments and may include adjacent jurisdictions if necessary, such as the Texas Department of Transportation (TxDOT). During the design process, should any trail not meet minimum code requirements for design,

it may be required to seek approval from the appropriate City of Austin Board or Commission - See *Chapter 5 Implementation* for more information.

CONSTRUCTION

After design is complete, construction documents are developed. The documents are then used in a bidding process to select a viable contractor for the construction of the trail. During construction, care will be taken to protect adjacent heritage and protected trees. The Urban Trails Program recognizes the importance trees play in providing shade and comfort to Urban Trail users. Existing heritage and protected trees within 10' of the trail edge will be watered during construction.

The timeframe for this plan is formulated to address 2014 through the year 2030. Periodic review is recommended to provide an opportunity for citizen feedback and to adjust for any major events or occurrences that may significantly alter the recommendations of this plan. The current state of practice recommends an update to the plan five years after approval by city council.

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CHAPTER 1: INTRODUCTION TO URBAN TRAILS

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AUSTIN URBAN TRAILS MASTER PLAN

CHAPTER 1

INTRODUCTION TO URBAN TRAILS



Highland Station Urban Trail
Grand Opening

The purpose of the Urban Trails Master Plan is to provide a vision and guidance for Urban Trail development in Austin. While there are over 300 miles of trails in Austin, this plan only deals with a specific type of trail. Urban Trails are defined as:

A citywide network of non-motorized, multi-use pathways that are used by bicyclists, pedestrians, runners, skateboarders and other wheeled users for both transportation and recreation purposes.

About 30 miles of Urban Trails have already been built in Austin over the past four decades. They have been designed, constructed and maintained in different ways through agreements established on a trail by trail basis involving a variety of governmental and non-governmental entities.

Austin is known for many things, from live music to tech start-ups to breakfast tacos. About 100 people move to Austin every day to take advantage of our thriving employment opportunities and unique culture. Austin frequently makes appearances in top 10 city rankings, including a recent 2014 survey ranking Austin as the second best city in the nation for Millennials (Niche Ink). However, another list Austin has been making for years is worst traffic. In 2014 Forbes magazine ranked Austin as the fourth worst medium- sized city in the nation for traffic congestion. The average driver in Austin wasted 41 hours stuck in traffic in 2013. With this past year's 6.6% increase in population our roadways are only getting more congested. Studies since the 1970s have shown that widening roads does not mitigate congestion but rather induces more traffic. Austin needs to enhance alternative ways of moving around the city to make travel more efficient for current residents and those to come.

Another reason to enhance bicycle and pedestrian infrastructure in Austin is environmental integrity. Transportation accounts for 28% of total U.S. greenhouse gas emissions, according to the United States Environmental Protection Agency's 2012 findings. Passenger cars represent 43% of these transportation emissions¹. The Sierra Club released an analysis in 2014 which shows that if American drivers were

1. U.S. Environmental Protection Agency. 2013. Fast Facts: US Transportation Sector Greenhouse Gas Emissions. <http://www.epa.gov/otaq/climate/documents/420f13033a.pdf>

to make just one four-mile round trip each week by foot or bicycle instead of car, they would save about 2 billion gallons of gas or 18 million metric tons of carbon. Traveling by foot or by bicycle can have a significant impact on the environment, reducing greenhouse gas emissions like carbon dioxide and the myriad of other pollutants produced during the production and life of motor vehicles.

Reducing transportation pollution is good for the health of the environment and people. Today, motor vehicles are responsible for about 50% of smog-forming volatile organic compounds (VOCs), a major contributor to asthma². Swapping car trips for Urban Trail trips, whether for transportation or recreation, will improve air quality and decrease the main air pollutants that can affect asthma. Another health benefit that Urban Trails offer is exercise. According to the Center for Disease Control, 80% of American adults do not get the recommended amounts of exercise. Exercise can help control weight, reduce the risk of heart disease and some cancers, and even provides mental health benefits. Incorporating exercise into transportation is one of the most efficient and secure ways to get your heart rate up every day.

Many different City entities have envisioned Urban Trails as an essential part of Austin's transportation and recreation infrastructure. In 2008, the Austin City Council passed Resolution No. 20080424-064 calling for the creation of a trails master plan to provide clear guidance to enhance bicycle and pedestrian infrastructure and connectivity. The ordinance called for interdepartmental coordination including the Public Works Department and Parks and Recreation Department. The following year, the Public Works Department released the 2009 Bicycle Master Plan which recommended 300 miles of "multi-use paths." In 2010, the Parks and Recreation Department's "Long Range Plan for Land, Facilities, and Programs" was adopted, identifying a variety of trails and accompanying standards, including a 12 foot wide Urban Multi-use Trail. Similar to the 2009 Bicycle Plan, the Long Range Plan provided a map illustrating a vision of an Urban Trails network.

In 2012, the City adopted the Imagine Austin comprehensive plan. This plan also identified existing trails and key corridors as Urban Trails. Imagine Austin describes Urban Trails as serving recreational and transportation functions, as well as expanding the city's green

According to the 2014 national survey by The Rockefeller Foundation and Transportation for America, the Millennial generation wants to drive less. Comprising of Americans 18-34 years old and representing the largest generation in history, 54% of Millennials would consider moving to a city where they would not have to rely on a car for transportation.

2. U.S. Environmental Protection Agency. 2012. The Plain English Guide to the Clean Air Act. http://www.epa.gov/airquality/peg_caa/index.html



AUSTIN URBAN TRAILS MASTER PLAN

#1 Invest in a compact and connected Austin

#2 Sustainably manage our water resources

#3 Continue to grow Austin's economy by investing in our workforce, education systems, entrepreneurs, and local businesses

#4 Use green infrastructure to protect environmentally sensitive areas and integrate nature into the City

#5 Grow and invest in Austin's creative economy

#6 Develop and maintain household affordability throughout Austin

#7 Create a healthy Austin program

#8 Revise Austin's development regulations and process to promote a compact and connected city

infrastructure network. There are eight priority programs described in Imagine Austin which are intended to provide structure and direction for implementation of Austin's comprehensive plan. The Urban Trails Master Plan supports all of the priority programs in Imagine Austin (see Table 1.1). Trail design criteria, prioritization of trails, and the implementation process follow the vision and guidelines set forth in the comprehensive plan. The 2013 Urban Forest Plan and new Watershed Protection Ordinance also identify Urban Trails as important elements of green infrastructure. The Watershed Protection Ordinance encourages development of Urban Trails where other development is prohibited, along waterways and drainage facilities.

Eight priority programs from Imagine Austin

These six previous Austin initiatives serve as the impetus for the Urban Trails Master Plan. This plan seeks to develop a cohesive document to be utilized by the Public Works Department for the design, construction, maintenance and policy actions needed to

Table 1.1 Relationship of Urban Trails Master Plan to *Imagine Austin*

<i>Imagine Austin</i> Priority Program	How the UTMP Supports the Program
Compact and Connected	The primary intention of the Urban Trails Master Plan is to provide off-street routes and link to other transportation networks and destinations.
Sustainably manage water resources	Some Urban Trails utilize greenbelts and all will adhere to the Watershed Protection Ordinance.
Grow Austin's economy	Urban Trails will help grow Austin's economy by providing access to businesses via affordable, active transportation options.
Green Infrastructure	Urban Trails embody green infrastructure by providing opportunities for low impact development, stormwater management infrastructure, and the reuse of reclaimed materials in construction.
Austin's creative economy	Austin's creative economy needs affordable, progressive and engaging forms of moving around the city. Trails provide a unique opportunity to commune with nature and seek respite from urban life.
Household affordability	Transportation costs are a household's second largest expense after housing costs. Reducing reliance on automobiles saves money on vehicular ownership and maintenance.
Healthy program	Urban Trails provide the opportunity for people to exercise for fun or transportation.
Development regulations and processes	This plan recommends policy and operational actions for implementation

create a successful Urban Trail network for the City of Austin. The Urban Trails Master Plan envisions a system of Urban Trails that connects all of Austin by allowing residents to travel from one end of the city to the other in a safe and healthy way. This plan is intended to be flexible and remain a viable tool as Austin continues to grow and change.

WHAT IS AN URBAN TRAIL?

Imagine Austin defined an Urban Trail as a:

MULTI-USE PUBLIC PATH THAT CREATES AN ACTIVE TRANSPORTATION CORRIDOR THROUGH A BUILT ENVIRONMENT TO PROVIDE MOBILITY FOR ACTIVE TRANSPORTATION AND CREATE GREENWAYS THROUGH DEVELOPED AREAS AND PROVIDE EXPANDED TRAVEL CHOICES.³

Using this definition as a starting point, best practices were researched from cities around the nation to refine what is meant by an Urban Trail in the City of Austin.

Typically, cities will include a trail plan as a component of their park plan. The majority of those plans tend to have a recreational focus. Currently, very few cities have developed an Urban Trails plan with the intention and design of the facilities for both recreation and transportation purposes.

The definition of an Urban Trail that was developed through this planning process follows the guidance and recommendations from *Imagine Austin*, and was confirmed by the Citizen Advisory Group (CAG) and the Technical Advisory Group (TAG). For the City of Austin, the Urban Trail network is defined as a citywide network of non-motorized, multi-use pathways that are used by bicyclists, walkers and runners for transportation or recreation purposes.



The Audubon Park Trail in New Orleans can comfortably accommodate pedestrians and bicyclists side by side.

3. City of Austin. 2012. *Imagine Austin Comprehensive Plan*: A-27.



AUSTIN URBAN TRAILS MASTER PLAN

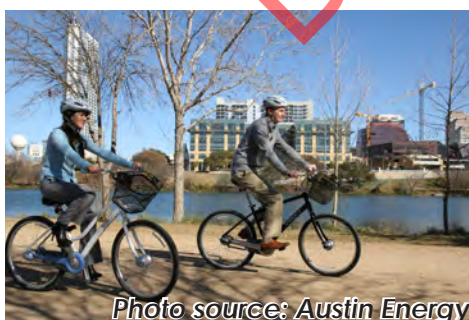
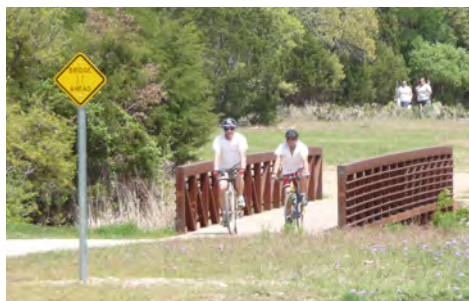


Photo source: Austin Energy

Potential Urban Trail users may include dog walkers, roller bladers, joggers, commuters and recreational bicyclists.

Table 1.2 Best Practices Comparisons

City	Defining Characteristics of Urban Trails
Colorado Springs, CO	Used for recreation and off-street transportation for non-motorized users. The easement/corridor width standard is 50 feet. Trail is 12 feet wide and a hard surface with a two to four foot soft shoulder.
Flagstaff, AZ	Non-motorized, shared-use pathways used by bicyclists, walkers, hikers, runners and others for both recreation and transportation. Generally eight or ten feet in width; can be concrete, asphalt or hard-packed, aggregate surface. Must be within the urban area of the City.
San Francisco, CA	Located within natural areas, most often parks. Typically used for hiking, with no set standards to improve trails for commuting or transportation. Intended purpose is recreation.
Seattle, WA	Called the "Urban Trails and Bikeways System" it includes both multi-use trails and streets with bicycle lanes to form an interconnected system.
Portland, OR	Regional trails include off-street paved and natural surface trails, and on-street trails. Policy to maintain separate and protected facilities for each mode (bicyclist, pedestrian, other non-motorized user) whenever feasible.
American Trails Organization	Can be used for bicycling, walking, running, in-line skating, stroller or wheelchair use. An active transportation corridor through the built environment.

CHARACTERISTICS OF URBAN TRAILS

The Urban Trails in Austin will appeal to everyone. Whether young or old, commuting or wanting no more than a few minutes out in a beautiful area, everyone can find something to do on an Urban Trail. This section lays the foundation for Urban Trail characteristics. Urban Trails in Austin will:

- ◆ Serve both transportation and recreation users,
- ◆ Provide multiple connections to key destinations around the City,
- ◆ Accommodate a variety of bicycle and pedestrian users,
- ◆ Have an aesthetic appeal and provide easy access to the natural environment, and

- ◆ Be perceived as safe.

In order for a trail corridor in Austin to be considered an Urban Trail, it must have:

- ◆ The potential to connect significant destinations,
- ◆ The potential for multiple access points from neighborhoods and areas around it,
- ◆ The capability of being wide enough to accommodate two-way pedestrian and bicycle use,
- ◆ All weather pavement surface,
- ◆ A location which is generally outside or on the fringes of significant natural areas, and
- ◆ Connections to the on-street bicycle and sidewalk network.

BENEFITS OF URBAN TRAILS

For many decades, trails have been one of the most popular assets that a community can offer. A well planned and interconnected trails system can serve as an alternative mode of transportation as well as recreation. With the high price of gas, worsening traffic congestion and a growing desire to decrease our carbon footprints, Urban Trails present a solution for residents to commute to work or school as well as places to shop, restaurants, and other entertainment venues.

Because of the favorable weather in Austin the majority of the year, trails are often the most frequently requested amenity when surveying the community. Amongst the many benefits, Urban Trails:

- ◆ Provide economic benefits to the City: the cost of constructing roadways is 50 times greater than the cost of constructing cycle tracks, and 12 times greater than the cost of constructing Urban Trails⁴,
- ◆ Help everyone save money: the cost of owning a vehicle is nearly 73 times greater than the cost of

Reducing household transportation costs helps achieve the goals of Imagine Austin's Household Affordability Priority Program:

According to the Bureau of Transportation, the average annual maintenance cost of a bicycle is \$308, versus \$8,220 for the average car. A new study by the League of American Bicyclists shows that bicyclists in the U.S. save \$4.6 billion a year by not driving.

4. As determined by the City of Austin Public Works Department for recent construction costs per mile for four-lane roadways, cycle tracks and trails.



AUSTIN URBAN TRAILS MASTER PLAN

owning a bicycle⁵,

- ◆ Support a healthy lifestyle by giving people the opportunity to be physically active, which in turn can reduce their risk of heart disease, obesity, depression, diabetes and other health problems,
- ◆ Help reduce traffic congestion by having fewer vehicles on the road,
- ◆ Help reduce pollution,
- ◆ Increase safety by providing protected pedestrian and bicycle infrastructure,
- ◆ Enhance accessibility and mobility by providing more transportation options
- ◆ Increase urban accessibility for people of all ages, from 8 to 80,
- ◆ Provide opportunities for social interaction and community engagement,
- ◆ Increase access to nature,
- ◆ Help stimulate economic growth by attracting businesses and residential development, and
- ◆ Encourage bicycle ridership and walking.

WHO WILL IMPLEMENT THIS PLAN?

The implementation of the Urban Trails Master Plan will be lead by the City of Austin Public Works Department. However, everyone in Austin has a vested interest in developing the citywide network of Urban Trails. Other key implementers could include:

- ◆ All area governmental entities, including the City of Austin, Travis County, other surrounding cities and counties, Austin ISD, and other entities such as CapMetro and TxDOT.
- ◆ Other departments within the City of Austin, including Watershed Protection, Transportation, Planning, and Parks & Recreation.

5. The American Automobile Association estimates that the average American spends an estimated \$8,776 per year to own and operate a car, while bicyclists typically spend less than \$120 per year, as estimated by the League of American Bicyclists.

- ◆ Property owners, developers, commercial entities, and others in the business community in Austin by constructing or offering trail connections.
- ◆ Community homeowner associations (HOAs) and other collective groups of neighborhoods who construct trails and trail connections.
- ◆ Adjacent residents of the surrounding counties and cities to help encourage connections to other adjacent systems.

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CHAPTER 2: GOALS AND OBJECTIVES OF THE URBAN TRAILS MASTER PLAN

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AUSTIN URBAN TRAILS MASTER PLAN

CHAPTER 2

GOALS & OBJECTIVES



Photo source: Jennifer M. Ramos

Lance Armstrong Bikeway
near Lamar Boulevard

The system of Urban Trails and connections recommended in this plan will enhance transportation and recreation opportunities, as well as to influence the overall appearance of the City.

This plan is both visionary and practical. The visionary component foresees a network of Urban Trail corridors that complement the on-street bicycling and sidewalk network by seamlessly allowing users to easily go anywhere in Austin by riding a bicycle or walking. The practical side envisions connections to all neighborhoods via readily accessible, safe and attractive Urban Trail facilities.

The following guiding principles were developed through the planning process, using public feedback, CAG and TAG input, and meetings with City staff. The goals serve to guide the recommendations proposed in this document. These goals also build upon visions and goals established in previous planning efforts such as *Imagine Austin*.

GUIDING PRINCIPLES FOR URBAN TRAILS

- ◆ **Create a Citywide Network** - The ultimate goal is to create an interconnected network that allows someone to travel across all of Austin. Existing unconnected sections should be united into an overall system of Urban Trails. Urban Trails are intended be used for both transportation and recreation. The City should create facilities that allow for commuting and short trips to retail and civic destinations.
- ◆ **Promote Safety** - Urban Trails should provide a smooth, usable, visible corridor that feels safe.
- ◆ **Access & Connectivity** - Access to the Urban Trail system must be maximized as much as feasible. This may range from simple sidewalk connections to complete trailheads with parking and comfort facilities such as shade shelters and restrooms. The City can encourage use of the system by creating easy access to Urban Trails, and creating an Urban Trails map for distribution. Urban Trail corridors and alignments should be designed to enhance linkages between parks, neighborhoods, schools, civic facilities, and community destinations, as well as complement the on-street bicycle and sidewalk network.
- ◆ **Urban Trails should enhance Austin** - Urban Trails should enhance the physical appearance of the City, whether through new facilities, improved landscaping, added green infrastructure, or tree and vegetation plantings.

- ♦ **Character and Context** - Urban Trails should take into consideration the environmental and historical character of the City of Austin. They should relate to and harmonize with their surroundings. Preservation of trees, vegetation, and wildlife is vital to the citizens of Austin and will be considered with the development of every Urban Trail.
- ♦ **Create partnerships** - The citywide Urban Trails system should encourage the creation of public and private partnerships that support the implementation of the recommendations in this plan.

URBAN TRAIL GOALS AND OBJECTIVES FOR AUSTIN

Goals and objectives for a plan such as this create the foundation for guiding future decisions and development. They are intended to build upon the vision established by the City's Comprehensive Plan. Goals are an important part of the planning process in that they provide the underlying philosophical framework for decisions and also guide decision makers on issues. The goals expressed in this master plan reflect the desires of the citizens, elected and appointed officials, and the staff of the City of Austin.

Goal #1 Provide adequate access to Urban Trails for both transportation and recreation users from all parts of the City.

- ♦ Objective 1.1 - In the central area of the City, defined as RM 2222 to Mopac Expressway, no point is farther than a 5 minute bicycle ride or a 10 minute walk from an Urban Trail (approximately a 1/2 mile radius).
- ♦ Objective 1.2 - In other parts of the City, from Oltorf Street to Pleasant Valley Road, no resident is farther than an 8 minute bicycle ride or 15 minute walk from an urban or park trail (approximately 3/4 mile radius).

Goal #2 Link all Urban Trails to the on-street bicycle and sidewalk network around them.

- ♦ Objective 2.1 - As feasible, work with stakeholders to identify and build appropriate gateways or access points to the Urban Trail network.
- ♦ Objective 2.2 - Ensure that any user can safely ride or walk to the Urban Trail nearest to them.



AUSTIN URBAN TRAILS MASTER PLAN

Goals describe the desired outcome for a plan. They are different from a vision in that they speak directly about a component of the overall system.

Objectives are identified statements or policies that work toward the goal. They are more specific than a goal, and address particular issues related to the elements to achieve the desired goal.

- ◆ Objective 2.3 - Ensure that development review seeks recreational easements when seeking redevelopment of property on Tier I or Tier II Trails.

Goal #3 Ensure that all Urban Trails are adequately sized to accommodate both recreational and transportation uses.

- ◆ Objective 3.1 - Urban Trails are developed with all weather surfaces that can accommodate both pedestrians and bicycles.
- ◆ Objective 3.2 - Urban Trails are developed with accessibility for all users and all levels of ability, including users with a disability of some type.

Goal #4 Incorporate trail amenities and features that transform them from a paved surface into unique greenways that reflect the City around them.

- ◆ Objective 4.1 - Incorporate amenity features, including mile markers, wayfinding, periodic trailheads, gateway features, parking and access points to increase interest in the Urban Trail corridors.
- ◆ Objective 4.2 - Include interpretive/educational features and public art components that link Urban Trails to the area around it.

Goal #5 Provide adequate funding and resources to maintain and operate Urban Trails in Austin.

- ◆ Objective 5.1 - Ensure that Urban Trails are maintained in an adequate manner as highly visible components of the City's urban infrastructure.
- ◆ Objective 5.2 - Plan and fund periodic upgrading/replacement of Urban Trail paving and associated features.
- ◆ Objective 5.3 - Include adequate and appropriate levels of lighting and safety patrols to maintain a strong sense of security along all Urban Trails.
- ◆ Objective 5.4 - Promote the use of Urban Trails with maps, wayfinding and periodic events celebrating Austin's unique Urban Trails system.

Goal #6 Ensure that all Urban Trails are context-sensitive and environmentally sustainable as well as preserve and improve wildlife habitat.

- ◆ Objective 6.1 - Minimize impacts to water quality of creeks, lakes, and aquifers through the use of appropriate Urban Trail design and green infrastructure.
- ◆ Objective 6.2 - Avoid placement within Erosion Hazard Zones and Critical Water Quality Zones.
- ◆ Objective 6.3 - Preserve vegetation, trees, and wildlife habitat.
- ◆ Objective 6.4 - Include an independent, certified wildlife biologist or ecologist as part of the design and construction team for each Urban Trail.

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CHAPTER 3: THE URBAN TRAIL NETWORK

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AUSTIN URBAN TRAILS MASTER PLAN

CHAPTER 3

THE URBAN TRAIL NETWORK



Southern Walnut Creek Trail

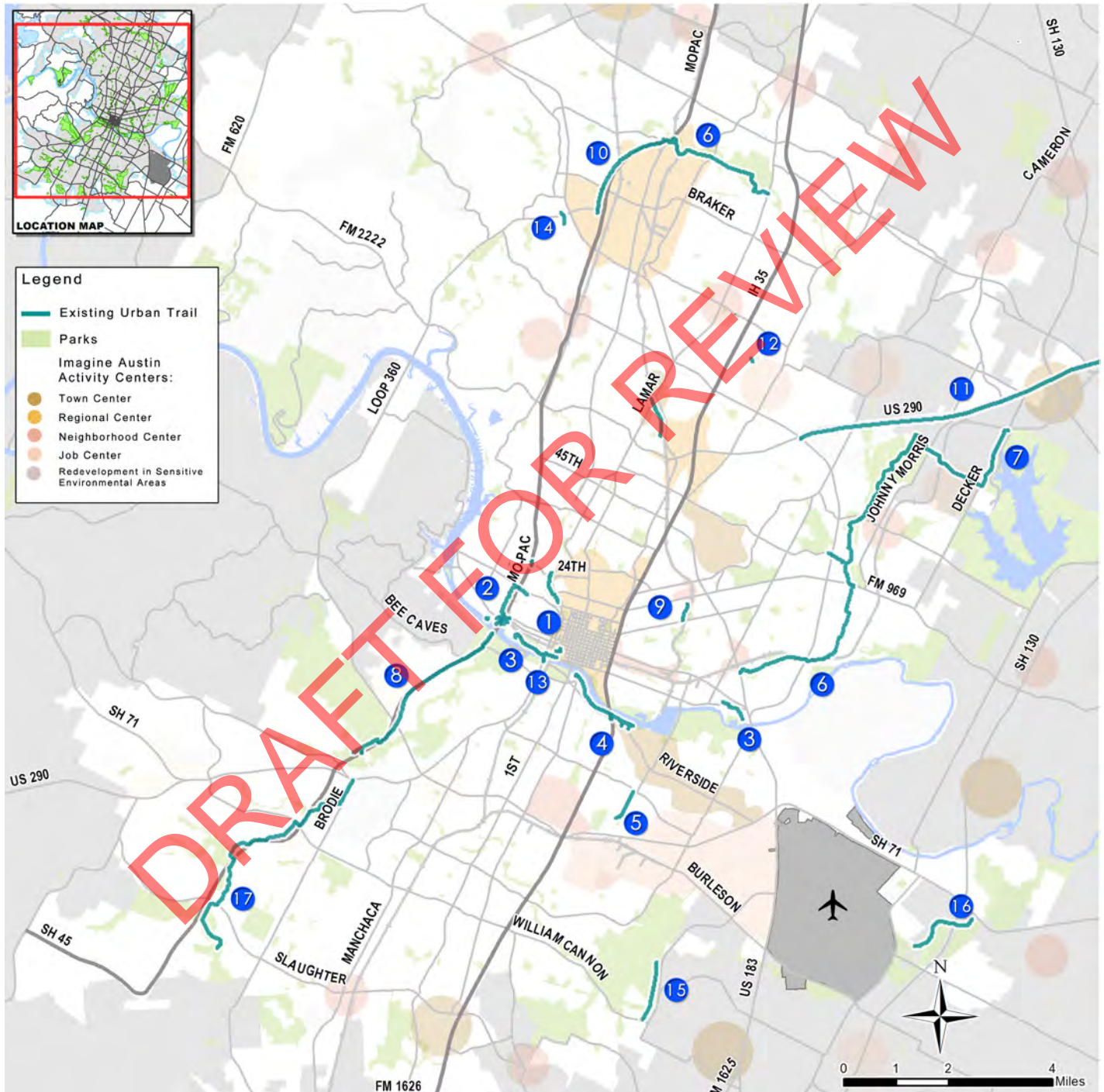
The 2014 Urban Trails Master Plan is the first comprehensive analysis of Urban Trails in the City of Austin. Whereas trails in Austin have been planned and designed on a trail-by-trail basis, this plan provides criteria and guidelines for Urban Trail development. This chapter discusses the existing, funded and proposed Urban Trail network in Austin.

There are approximately 300 miles of trails of all types within the City of Austin. About 30 miles of these existing trails are considered Urban Trails. These trails have been built by various organizations over the past five decades. Since there has never been a master plan guiding Urban Trail development they do not all meet the standards set forth in the Urban Trails Master Plan. Many existing trail segments, for example, are less than 12 feet wide. Yet these 30 miles of existing Urban Trails serve as the backbone of the network, and provide the community with an off-street option for traveling around and enjoying the city.

The existing Urban Trail network, including 9 miles of funded Urban Trails, is described below and illustrated in the map to the right:

1. **Shoal Creek Trail:**
3rd Street to 6th Street improvements *FUNDED*
Kingsbury Street to 24th Street *FUNDED*
2. **Johnson Creek Trail:** Lady Bird Lake to Enfield Road
Enfield Trail connection: Johnson Creek Trail to Woodlawn Boulevard
3. **Lance Armstrong Bikeway:** Stephen F. Austin Drive to Shoal Creek Trail; Shady Lane to Montopolis Drive
4. **The Boardwalk at Lady Bird Lake:** Lakeshore Boulevard to Ann and Roy Butler Trail
5. **Country Club Creek Trail:** Oltorf Street to Bureson Road
6. **Walnut Creek Corridor:**
Southern Walnut Creek Trail: Govalle Park to Johnny Morris Road
Northern Walnut Creek Trail: Walnut Creek Metropolitan Park to Balcones Park
7. **Austin to Manor Trail:** Johnny Morris Road to Lindell Lane
8. **Barton Corridor:**
Stratford to Barton Springs Connector: Lady Bird Lake to Tuscan Terrace
Mopac Bicycle and Pedestrian Bridge *FUNDED*:
Over Barton Creek on Mopac Expressway
9. **Red Line Corridor:**
Upper Boggy Creek Trail: 12th Street to MLK Station
Highland Station Urban Trail: Denson Drive to Lamar Boulevard
10. **MoPac Improvement Project:**
24th Street to Hartford Street Connector *FUNDED*
UT Pickle Connector *FUNDED*: Research Boulevard to Neils Thompson Drive
11. **Manor Expressway Trail** *FUNDED*: US 183 to Parmer Lane Extension
12. **North Acres Bridge:** Park Plaza to Furness Drive
13. **Pfluger Bridge:** connects the north and south sides of the Ann and Roy Butler Trail just east of Lamar Boulevard
14. **Jollyville 360 connector:** Arboretum to Loop 360
15. **McKinney Falls/ William Cannon Drive Trail:**
McKinney Falls State Park to William Cannon Drive
16. **Onion Creek Trail:** SH 71 to Pimlico Drive
17. **Violet Crown Trail:** Lady Bird Johnson Wildflower Center to Convict Hill Road

EXISTING URBAN TRAILS IN AUSTIN





AUSTIN URBAN TRAILS MASTER PLAN

BUILDING A NETWORK

Before the Urban Trails Master Plan several other local planning efforts addressed the development of trails for transportation and recreation purposes. These plans, further discussed in Chapter 5, include the 2007 Parks and Recreation Long Range Plan for Land, Facilities and Programs, the 2009 Bicycle Master Plan, the 2012 Imagine Austin comprehensive plan, the 2013 Watershed Protection Ordinance and multiple neighborhood plans. The recommendations from these plans are included in the Urban Trails Master Plan. This way the Urban Trails Master Plan serves as a truly comprehensive overview of Austin trails by combining past recommendations as well as creating new ones. In order to help guide implementation and development the Urban Trails Master Plan divides trail recommendations into Tier I and Tier II trails.

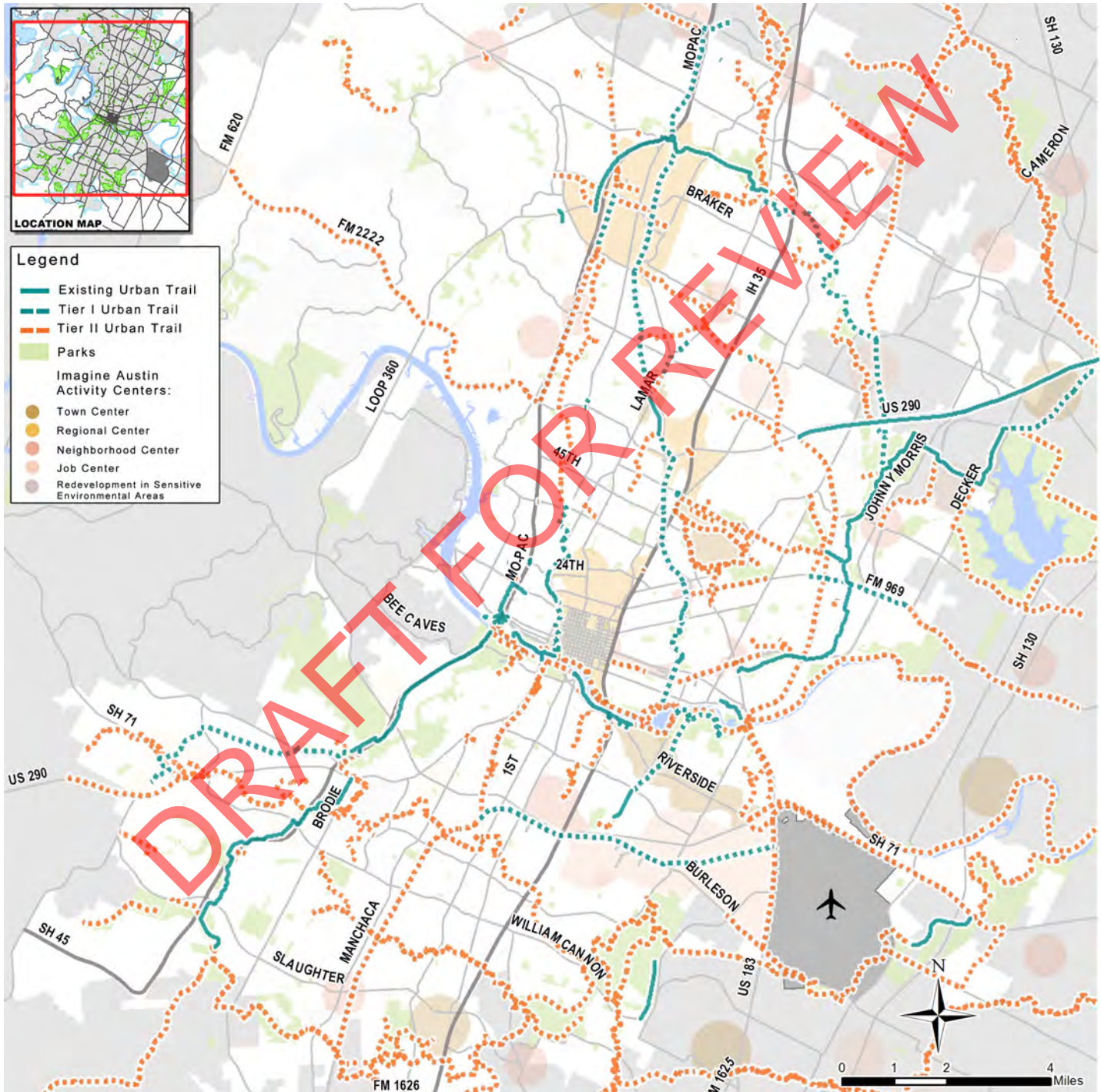
The recommended Urban Trails in this plan represent identified opportunities around the city. These opportunities are illustrated in the map to the right. The goal of the Urban Trails Master Plan is to identify these connectors and corridors so as to provide direction as development opportunities arise. Over miles of potential Urban Trails are recommended in this plan. While such mileage far exceeds the build-out capabilities of the City, the goal of providing so many recommended paths is to offer ample direction for future Urban Trail development.

Recommended trails are divided into Tier I and Tier II trails. **Tier I Urban Trails** are those that have been identified as serving a high number of potential users. These trails are often located near dense population; connect to multiple destinations and attractions; and have been partially constructed. Many Tier I trails have existing trail segments or are partially funded. **Tier II Urban Trails** are those that have been identified either during the planning process for this plan or during previous trail planning processes. The City of Austin will seek development, planning or land use changes which may trigger an assessment of the feasibility of Tier II Urban Trails.

This plan recommends 47 miles of Tier I Urban Trails and 360 miles of Tier II Urban Trails. Considering the cost of design, labor and construction, current Urban Trail costs are about \$2 million/mile to build. Given historic levels of funding and resources, the City of Austin Urban Trails Program estimates it could take between 10 - 25 years to build 47 miles of Tier I Urban Trails, depending on political and financial support.

Since the 47 miles of Tier I Urban Trails are the most likely to be built

A MAP OF OPPORTUNITIES



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a “no-build” option may be appropriate.



AUSTIN URBAN TRAILS MASTER PLAN

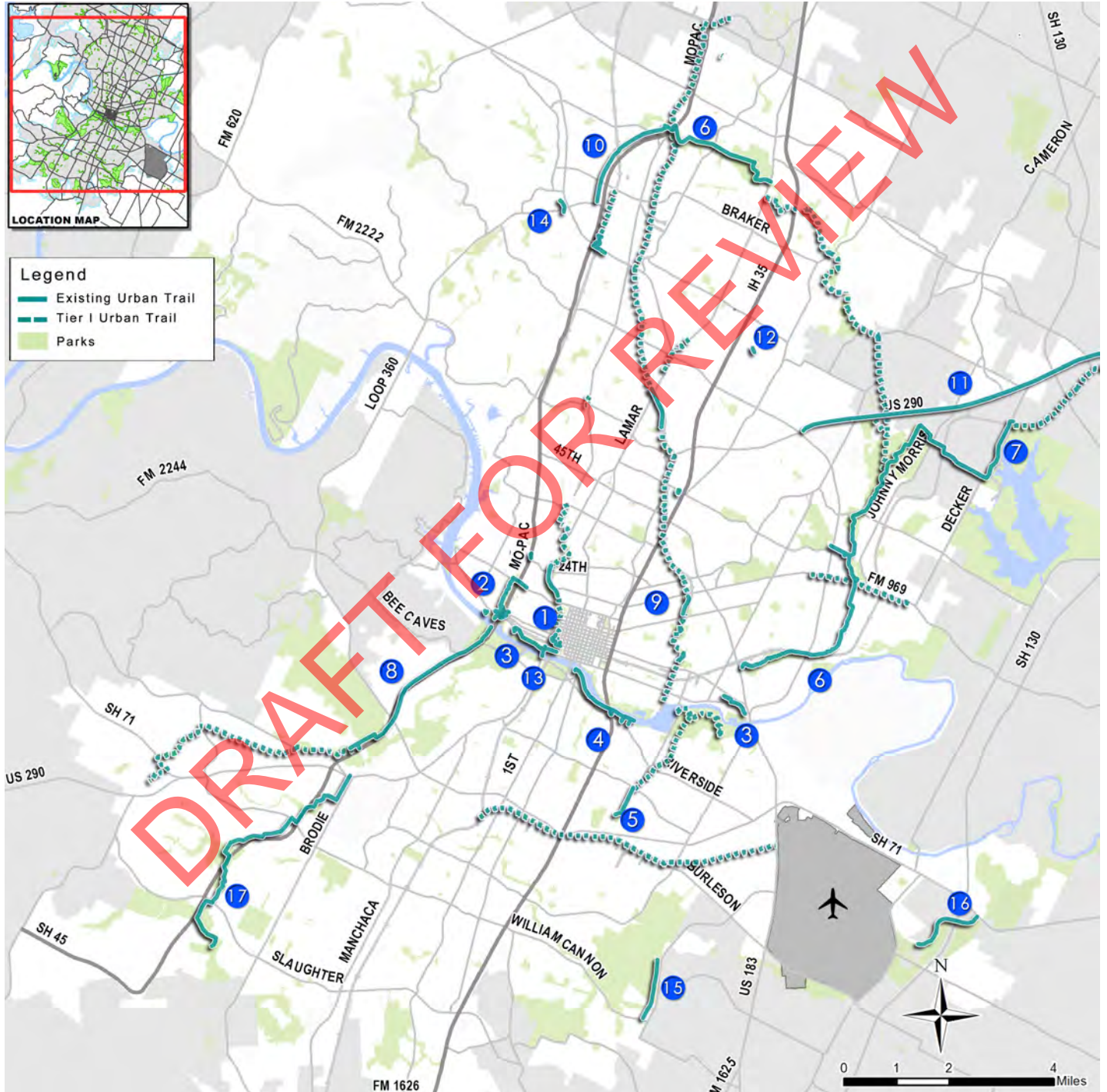
within the next decade or two, the following chapter section will focus on these opportunities. Together with the existing Urban Trails we can envision the Austin Urban Trail Network. This network consists of ten main trail systems. The following vignettes review these ten systems that make up the core of the existing and proposed Urban Trail network.

Other important trail systems emerge from partnerships between varying governmental entities, non-profit organizations and private developers. Some of these trails, like Phase II of the Violet Crown Trail, have segments that fit the criteria of an Urban Trail, while others, like the Waller Creek Trail, are yet to be determined. A significant partnership for the construction of Urban Trails is with the Texas Department of Transportation. This relationship is further discussed at the end of this chapter in *TxDOT Shared-Use Paths*.

10 MAIN URBAN TRAIL SYSTEMS

1. **Shoal Creek Trail:**
Lady Bird Lake to 38th Street
3rd Street to 6th Street
improvements *FUNDED*
Kingsbury Street to 24th Street
FUNDED
24th Street to 38th Street
2. **Johnson Creek Trail:** Lady Bird Lake to Enfield Road
3. **Lance Armstrong Bikeway:**
Stephen F. Austin Drive to Shoal Creek Trail; Shady Lane to Montopolis Drive
4. **The Boardwalk at Lady Bird Lake:** Lakeshore Boulevard to Ann and Roy Butler Trail
5. **Country Club Creek Trail:** Roy G. Guerrero Park to Mabel Davis Park
6. **Walnut Creek Corridor:**
Southern Walnut Creek Trail: Govalle Park to Johnny Morris Road
Mokan Rail Corridor connector: connects SWCT to NWCT from Walnut Creek Park to Cameron Road
Northern Walnut Creek Trail: Balcones Park to Cameron Road
7. **Austin to Manor Trail:** Johnny Morris Road to Ben E. Fisher Park in Manor, TX
8. **Barton Corridor:**
Stratford to Barton Springs Connector: Lady Bird Lake to Tuscan Terrace
Mopac Bicycle and Pedestrian Bridge *FUNDED*: Over Barton Creek on Mopac Expressway
YBC Urban Trail: Gaines Creek Greenbelt to Silver Dale Drive
9. **Red Line Corridor:** Metz Park to Howard Lane
10. **E Ben White Boulevard Rail Corridor:** US 183 to Vinson Drive

THE URBAN TRAILS NETWORK: EXISTING AND TIER I TRAILS



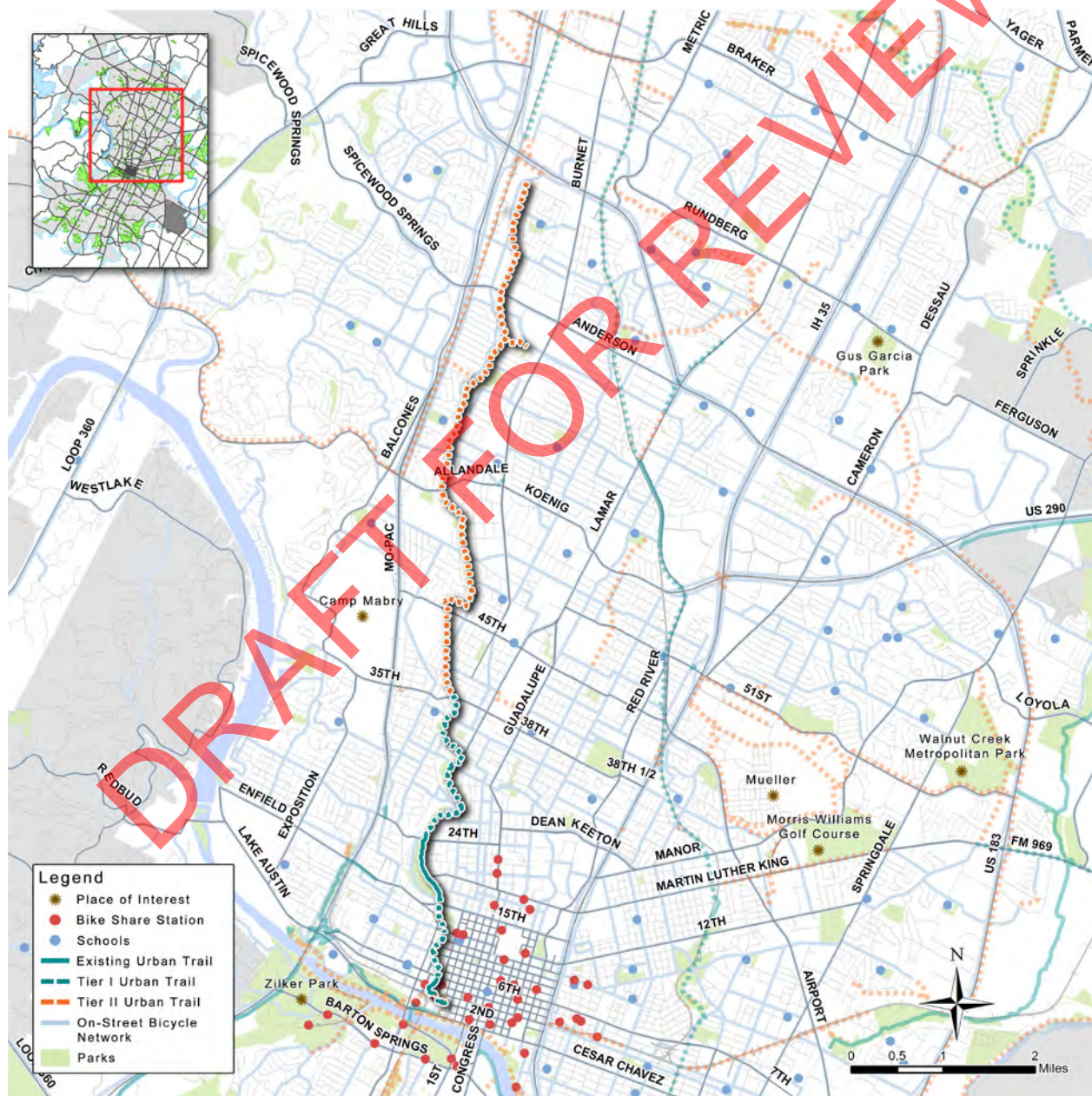
Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a “no-build” option may be appropriate.

The Shoal Creek Trail represents an important corridor for Active Transportation users in Central Austin. The trail parallels Lamar Boulevard providing a peaceful, scenic route alongside a major urban thoroughfare. One of the greatest features of this trail is its proximity and access to Central Austin.

Shoal Creek Trail is one of the oldest trail systems in the City of Austin. While it accommodates bicyclists and pedestrians from Cesar Chavez Street to 38th Street it does not currently meet the standards of an Urban Trail. For example, many trail segments are only six feet wide and certain

sections have a crushed rock surface rather than a hard surface material. Therefore, the Urban Trails map shows a dashed line because Shoal Creek Trail is considered a recommended Urban Trail, not an existing Urban Trail.

Almost three miles of Shoal Creek Trail are Tier I, spanning from 3rd Street to 15th Street and again from 24th Street to 28th Street. Almost one mile is funded, consisting of the section from 3rd Street to 6th Street and the section just north of 15th Street to 25th Street. The length of the envisioned Shoal Creek Trail corridor is 37 miles, beginning at Cesar Chavez Street and ending at US 183.



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a “no-build” option may be appropriate.

Shoal Creek Trail connects to the Lance Armstrong Bikeway just east of Lamar Boulevard by the Seaholm District. There are 10 bus lines that run nearby with stops within walking distance from the trail and five bike share stations within a five minute walk. A multitude of destinations exist along and nearby the trail, from restaurants to parks to places of employment.

Many local organizations support the Shoal Creek Trail, whether through preservation efforts or new trail recommendations, including the Shoal Creek Conservancy and North Shoal Creek Neighborhood Association. In 1998 the Shoal Creek Action Plan was published as a guide for future work in the area. This document provides an insightful overview of the Shoal Creek Trail and development recommendations including trail lighting, increase in signage along trail, access points and recommendations on care and consideration for trees and other vegetation.

The Public Works Department will work closely with Parks and Recreation (PARD) on additional infrastructure investments, as much of Shoal Creek Trail runs through parkland and will meet PARD's standards.



On Shoal Creek Trail between 6th St and 9th St, facing North.

Shoal Creek Trail	
Year Built	Early 1960s
Location	Central Austin
Length	2.5 miles (from 5th Street to 31st Street)
Average Trail Width	6 ft. to 8 ft.
Surface Material	Concrete
Pavement Condition	Average to fair
Access & Connectivity	Excellent; LAB, 5 bike share stations, 10 bus lines
Lighting	Lighting along Lamar Blvd (30% of trail)
Trail Amenity Features	Directional signage, trailhead features at three locations along the trail
Additional Investment Required	Widening of trail where feasible and appropriate, additional signage, improve accessibility, increase amenities such as drinking fountains

The Johnson Creek Trail spans for about one mile parallel to MoPac. It begins at Enfield Road and ends at Veterans Drive. At Veterans Drive Johnson Creek Trail connects to the on-street portion of the Lance Armstrong Bikeway.

The Johnson Creek Trail is a significant path in West Austin that links west-side neighborhoods to the Lance Armstrong Bikeway, Downtown Austin and the Lady Bird Lake area. The trail is concrete and the majority of the trail is about six feet wide. A large portion of the path has wide grassy shoulders and could be widened in the future.

If a connection across Lady Bird Lake was built, Johnson Creek Trail could connect to the Barton Corridor, spanning about nine miles from Enfield Road to SH 71 at the Y.

In 2012 the The Trail Foundation was awarded a Keep Austin Beautiful Best of the Best Award for their renovation and beautification of the Johnson Creek trailhead near Austin High School.



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a “no-build” option may be appropriate.



Entrance to Johnson Creek Trail at Enfield Rd and Winsted Ln, facing South.



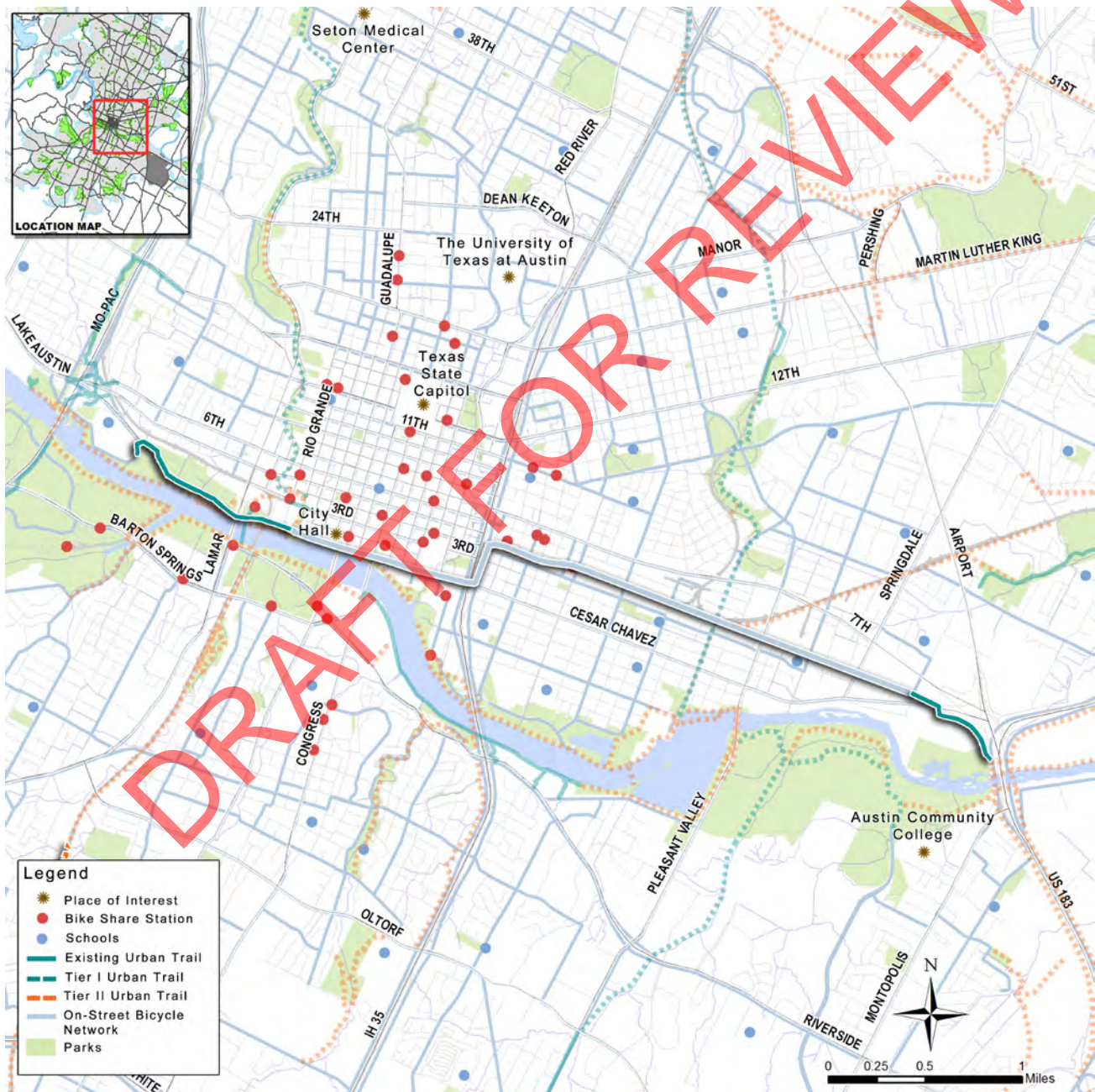
Johnson Creek Trail facing South.

Johnson Creek Trail	
Year Built	1977
Location	Central West
Length	1 mile
Average Trail Width	6 ft. to 8 ft.
Surface Material	Concrete & wood slat bridges
Pavement Condition	Average to fair Significant portions require re-paving
Access & Connectivity	Adequate; two trailheads, links neighborhoods, connects to sidewalk on W 5th St.
Lighting	Exists only along roadways (60% of trail)
Trail Amenity Features	New wayfinding signage, award-winning trailhead,
Additional Investment Required	Widening of trail as feasible where appropriate, additional lighting, additional signage, flooding mitigation, increased access points

The Lance Armstrong Bikeway (LAB) represents an important East-West route in Central Austin. The route spans 6 miles from the western end of MoPac to Montopolis Drive, however the off-street portion of the bikeway is about 2 miles. The off-street, Urban Trail section of the LAB begins as far west as the intersection of Stephen F. Austin Drive and Cesar Chavez Street. Here, the bikeway runs along the north side of Cesar Chavez Street and the pedestrian trail runs along the south side of Cesar Chavez Street. The LAB connects with the Shoal Creek Trail and

the Pfluger Bridge, continuing east as an on-street protected bikeway. Phase 3 of the Lance Armstrong Bikeway is an Urban Trail that extends east from Shady Lane to Montopolis Drive, providing a connection to US 183. Ultimately, the LAB will provide an East-West route across town.

Construction of the Lance Armstrong Bikeway began in 2007 with the support of numerous neighborhood associations, private businesses and grant financing from the Statewide Transportation Enhancement Program. The



trail is 10 ft. wide with 2 ft. grass shoulders and includes bridges and railing where necessary. The connection to Shoal Creek Trail allows trail users to ride or run seamlessly for miles in Central Austin. In 2010, a bike and pedestrian counter was installed along the cycle track section of the LAB just west of I-35. Since the counters installation on December 18, 2010, 923,967 bicyclists and 440,868 pedestrians have traversed the Lance Armstrong Bikeway.



Along the LAB looking northbound between Cesar Chavez Blvd. and 3rd St.



Along the LAB looking west near Lamar Blvd. and B.R. Reynolds Dr.



Source: The Big Story

Wayfinding & Placemaking:

An Art in Public Places installation creates a cohesive design element along the route. Other elements include yellow benches and yellow thermoplastic paint.

Lance Armstrong Bikeway	
Year Built	2007
Location	Central
Length	6 miles
Average Trail Width	10 ft. with 2 ft. grass shoulder
Surface Material	Concrete
Pavement Condition	Good
Access & Connectivity	High access to nearby areas, 3 bus lines, 2 bike share stations, connects to Shoal Creek Trail, Country Club Creek Trail, Butler Trail, Town Lake Metropolitan Park, Roy G. Guerrero Park, access to Lamar Beach and Zilker Park
Lighting	Adequate lighting along roadway
Trail Amenity Features	Directional pavement markings, interesting wayfinding
Additional Investment Required	Continue to work with Capital Metro and other landowners to implement the trail east of I-35

The Boardwalk Trail is a unique new Urban Trail in Central Austin along the south side of Lady Bird Lake. The Boardwalk covers a little over one mile and is partially on land and about half over water. It closes the eastern gap of the Butler Trail by the Austin American Statesman building and connects to Lakeshore Drive at Town Lake Metropolitan Park. The Boardwalk Trail completes the 10 mile loop trail system within the Town Lake Metropolitan Park. The Trail Foundation was instrumental in making the Boardwalk Trail a reality. In 2007 the Trail Foundation launched efforts to analyze the feasibility of the boardwalk. In 2010, City of Austin Bond funding was matched by approximately \$3 million in

private funding. The designs, engineering and public engagement process followed soon after. Construction on the Boardwalk was completed in June 2014.

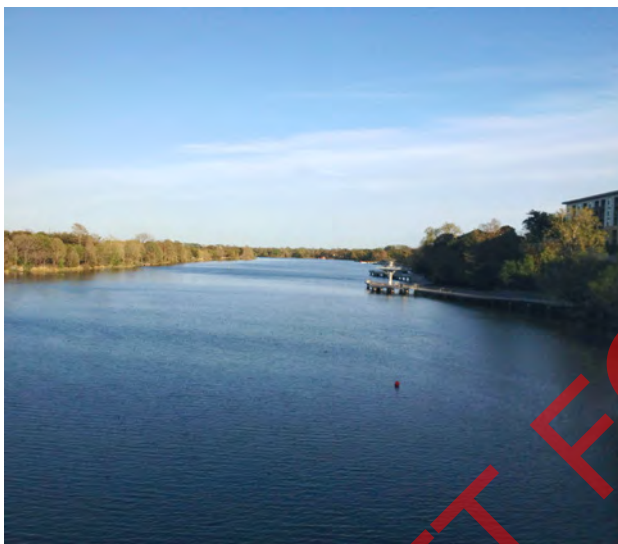
The Boardwalk Trail is 14 ft. wide and has a concrete surface. The on-land portions have a decomposed granite surface. The design meets the Americans with Disabilities Act Accessibility Guidelines, making the trailhead and route very accessible. The handrail of the trail along the water is equipped with shielded LED lighting. There is no lighting on the land portion except at the restroom.



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a "no-build" option may be appropriate.



This overpass will connect the North side of the Butler Trail to the new Boardwalk Trail.



On the pedestrian and bicycle path along I-35 looking East at the Boardwalk.



Photo source: The Trail Foundation

On the Boardwalk looking North

Boardwalk Trail

Year Built

2013-2014

Location

Central East

Length

1 mile

Average Trail Width

14 ft.

Surface Material

Concrete

Pavement Condition

New

Access & Connectivity

High access along south side of Lady Bird Lake, connects to Butler Trail

Lighting

Shielded, LED lighting in guardrail

Trail Amenity Features

Water access and viewing, restroom at trailhead

Additional Investment Required

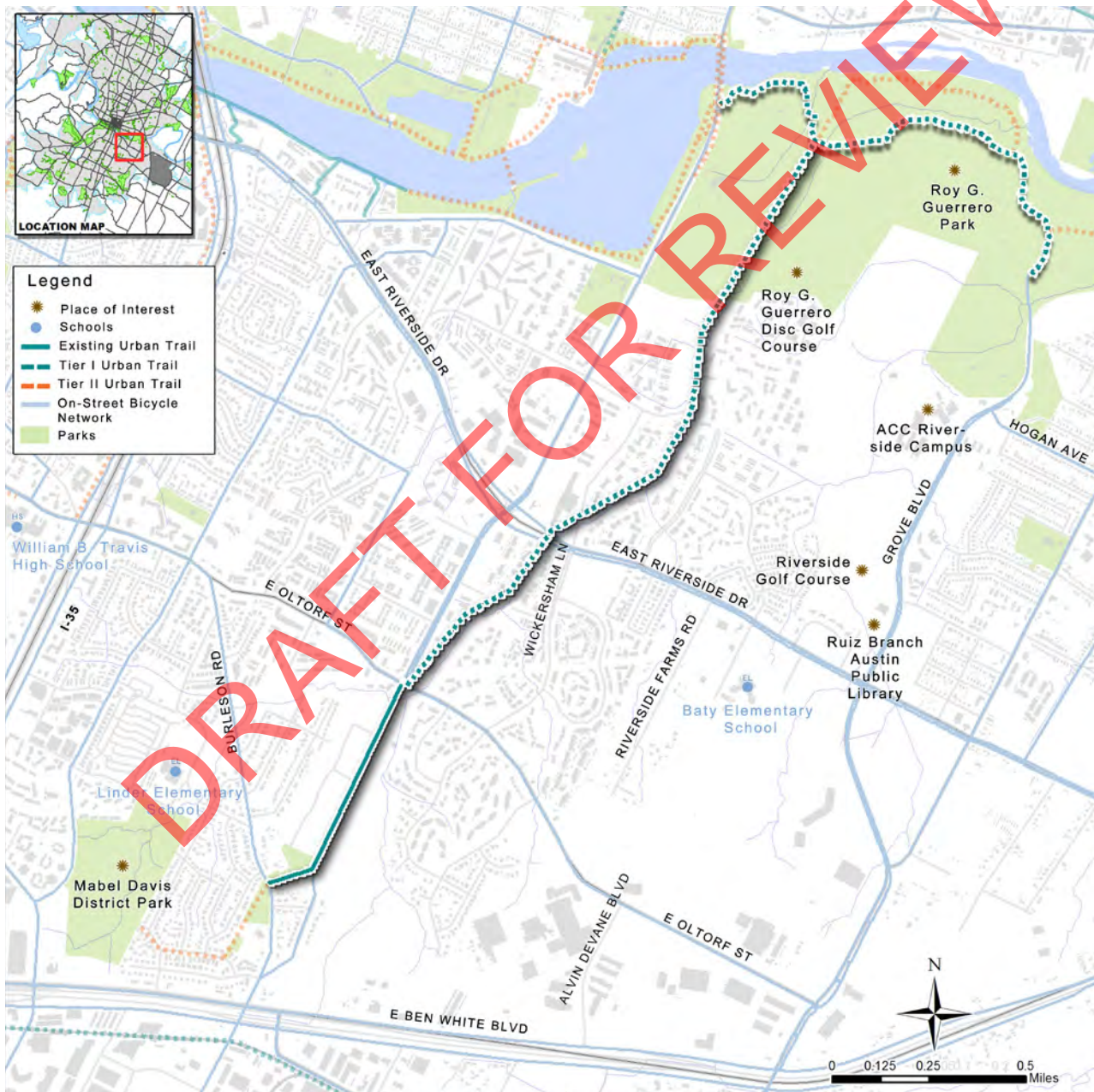
None at this time.

The Country Club Creek Trail serves as an important route in Southeast Austin with great potential to connect many surrounding areas and trails. It was originally identified and partially constructed by the South East Austin Trails and Greenways group. The path continues for four miles but just over half a mile has a hard surface.

The majority of the trail is natural surface, running along the Roy G. Guerrero Park, with the concrete surface picking up at E Oltorf Street and S Pleasant Valley Road. This section serves as a great neighborhood connector and runs parallel

to the west side of S Pleasant Valley Road for a little over half a mile until Burleson Road.

Almost two Tier I miles are proposed to continue the Country Club Creek Urban Trail from E Oltorf Street to Roy G. Guerrero Park. It would connect to another Tier I trail, the Colorado River Park Trail, that would run for 1.5 miles and improve connections to the Pleasant Valley Road bridge.



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a "no-build" option may be appropriate.



The Country Club Creek Trail near Lakeshore Blvd, facing North. The Urban Trails Master Plan recommends a hard surface for all Urban Trails in Austin to increase accessibility for a variety of trail users, from walkers with strollers to bike commuters.



View of the river from the Roy G. Guerrero Park



Facing North, near the Mabel Davis Park.

Country Club Creek Trail

Year Built

2007 last improvement

Location

South East

Length

0.6 miles

Average Trail Width

10 ft.

Surface Material

Concrete

Pavement Condition

Average, many gaps and areas need re-paving

Access & Connectivity

Access to Butler Trail, Lady Bird Lake, Montopolis Blvd. bridge, Roy G. Guerrero Park, Mabel Davis Park

Lighting

Minimal, along roadways

Trail Amenity Features

Unique placemaking, trail furniture

Additional Investment Required

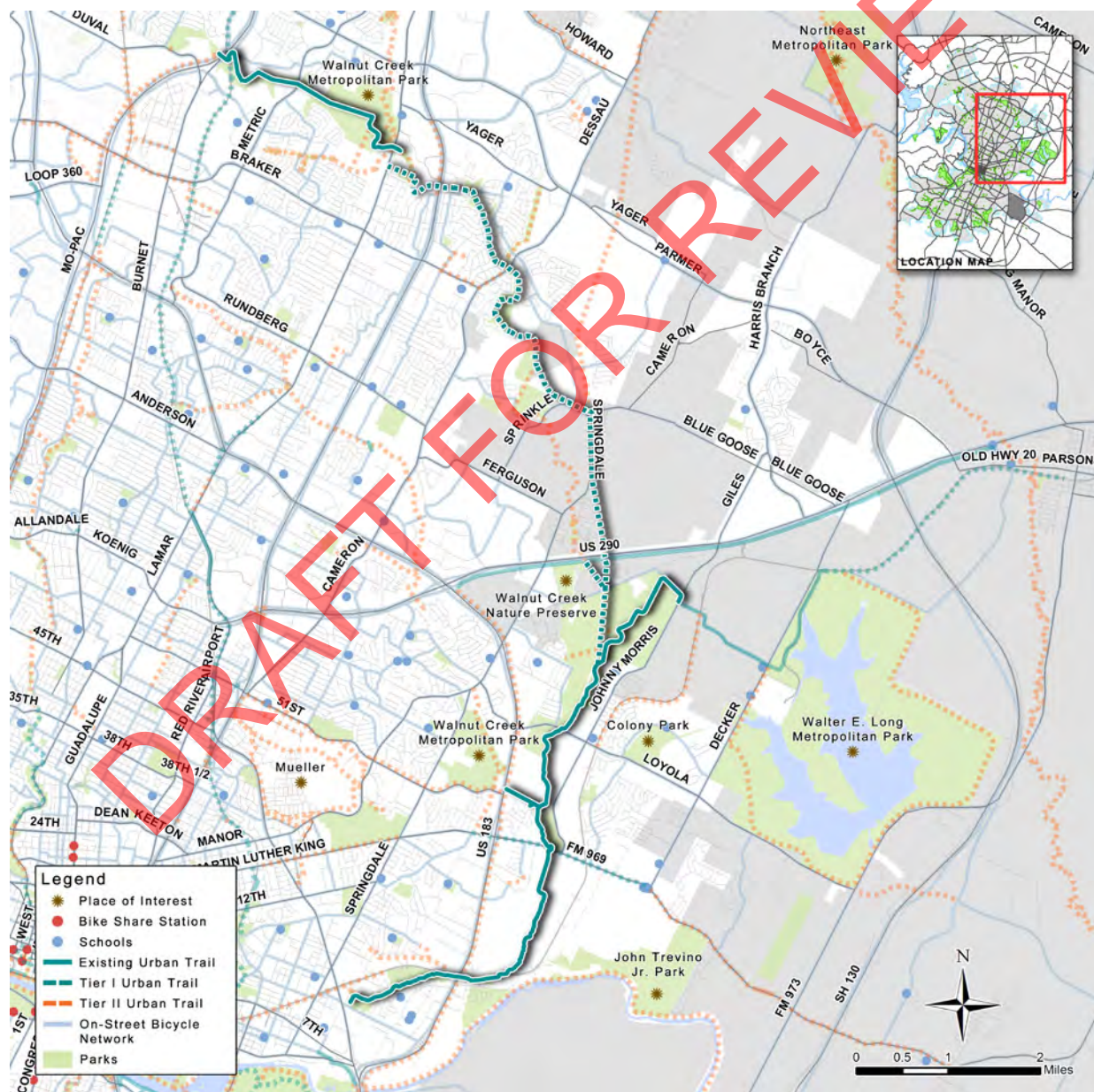
Enhance and expand hard surface trail

The Walnut Creek Corridor trail system consists of the Southern Walnut Creek Trail, a section of the Mokan Rail Corridor and the Northern Walnut Creek Trail. Currently, there are nine miles of existing Urban Trails and two miles of funded Urban Trails. When complete, the Walnut Creek system could create a 19 mile corridor connecting Balcones Park in North Austin to Govalle Park in Central East Austin.

The **Southern Walnut Creek Trail** follows the Walnut Creek watershed starting at Govalle Park and winding northeast where it will eventually stop at Daffan Lane and Johnny Morris Road.

The trail will be 7.3 miles once complete and construction is scheduled to finalize in summer 2014. The entire trail will be 10 feet wide with 2 foot shoulders and include five bridges, three culverts, one trailhead at Govalle Park and another at Johnny Morris Road, and parking. The most unique aspect of this trail is its remote natural environment. The path traverses mostly undeveloped land and is surrounded by established trees and greenery.

The **Mokan Rail Corridor** starts at Davis White Northeast District Park along Johnny Morris Road. The section considered Tier I extends almost three

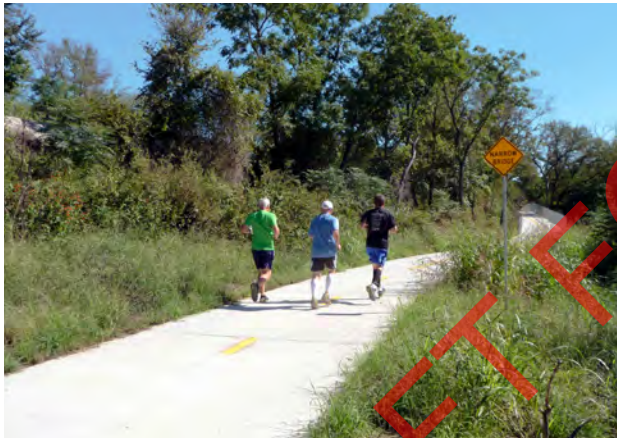


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miles north, connecting to the US 290 sidepath and the proposed Northern Walnut Creek Trail.

The end of the Tier I section of Mokan connects to the Tier I **Northern Walnut Creek Trail** at Springdale Road and Cameron Road. The proposed Northern Walnut Creek Trail extends almost four miles until the Walnut Creek Park. Here, a two mile funded section of the NWCT continues until Balcones Park.

Phase I began construction in 2010 and is scheduled to be complete in 2015. It starts in the Balcones Park and ends in the Walnut Creek Park. The Parks and Recreation Department initiated the project and collaborated with the Texas Department of Transportation on funding and implementation. A 10 foot wide concrete trail with 2 foot shoulders will be constructed.



Runners on the Southern Walnut Creek Trail.



Railroad crossing on the SWCT, looking northbound, just North of Delwau Lane.



Northern Walnut Creek Trail near Bittern Hollow.



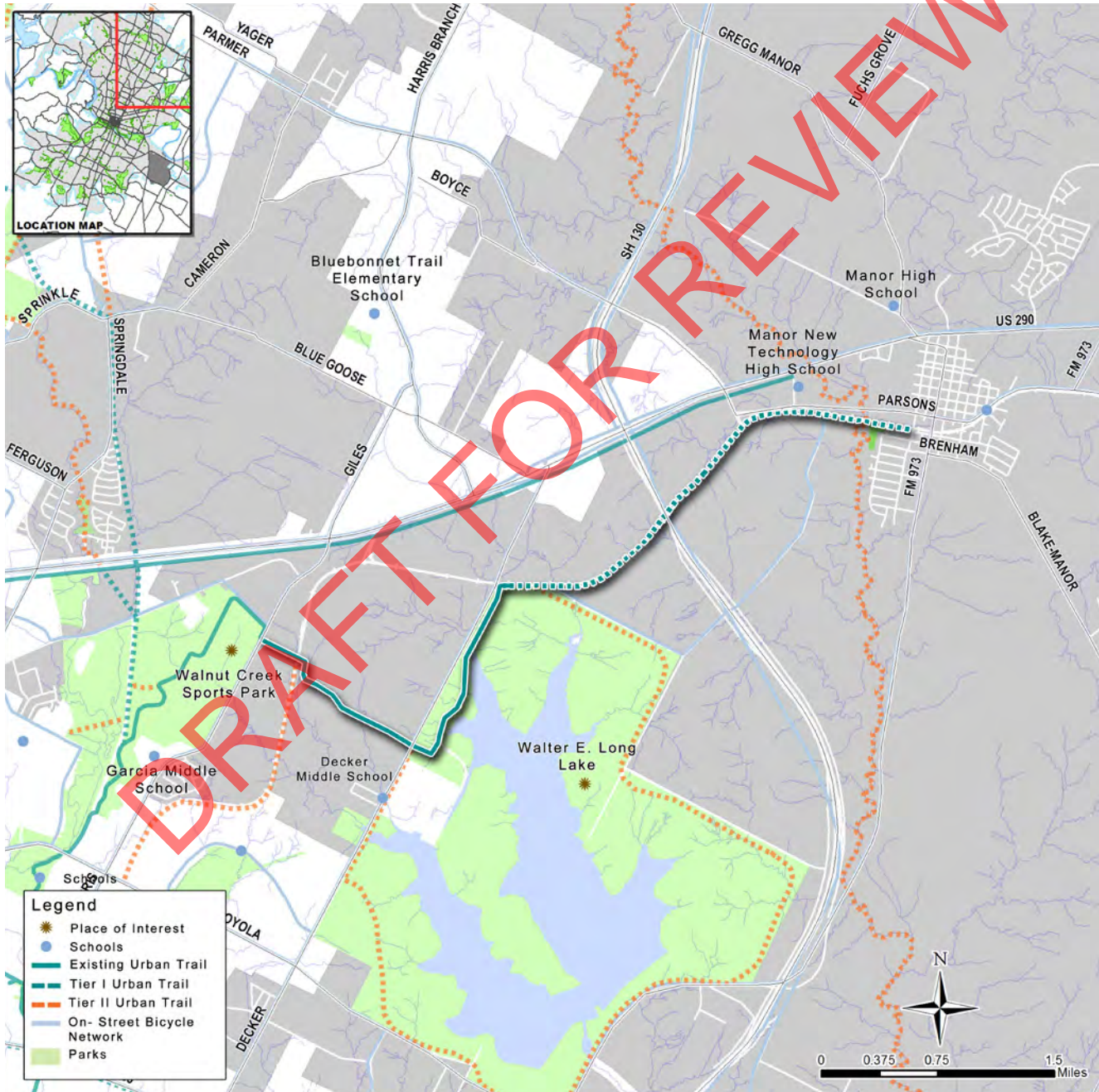
Elevated segment of the Southern Walnut Creek Trail along Delwau Lane.

The Austin to Manor Trail is an Urban Trail just south of US Highway 290. The first phase is complete and connects to the Southern Walnut Creek Trail, providing users an 11 mile ride from Central East Austin to Manor.

Phase I is 2.5 miles, beginning at Daffan Lane and running along the northern side of the Walter E. Long Metropolitan Park until Lindell Lane. Like the Southern Walnut Creek Trail it is a 10 foot wide concrete path with 2 foot wide grass shoulders. This path provides a safe, comfortable alternative

to the existing wide shoulder lane on Decker Lane, and provides users the unique experience of riding and walking along an abandoned rail line through Walter E. Long Park.

Phase II is a Tier I that proposes an extension at Lindell Lane for 2.5 miles to the Ben E. Fisher Park in Manor, TX.



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a "no-build" option may be appropriate.



Near Decker Elementary School looking East.



Near Decker Elementary School looking East.

Austin to Manor Trail	
Year Built	2014
Location	Far East
Length	2.5 miles, under construction
Average Trail Width	10 ft. wide with 2 ft. grass shoulders
Surface Material	Concrete
Pavement Condition	New
Access & Connectivity	Direct access to Decker Elementary School, Decker Middle School and Manor New Technology High School, accessible from adjacent roadways, access to Walter E. Long Metropolitan Park, limited
Lighting	Along roadways
Trail Amenity Features	N/A
Additional Investment Required	Additional connections to adjacent areas and on- and off-street facilities

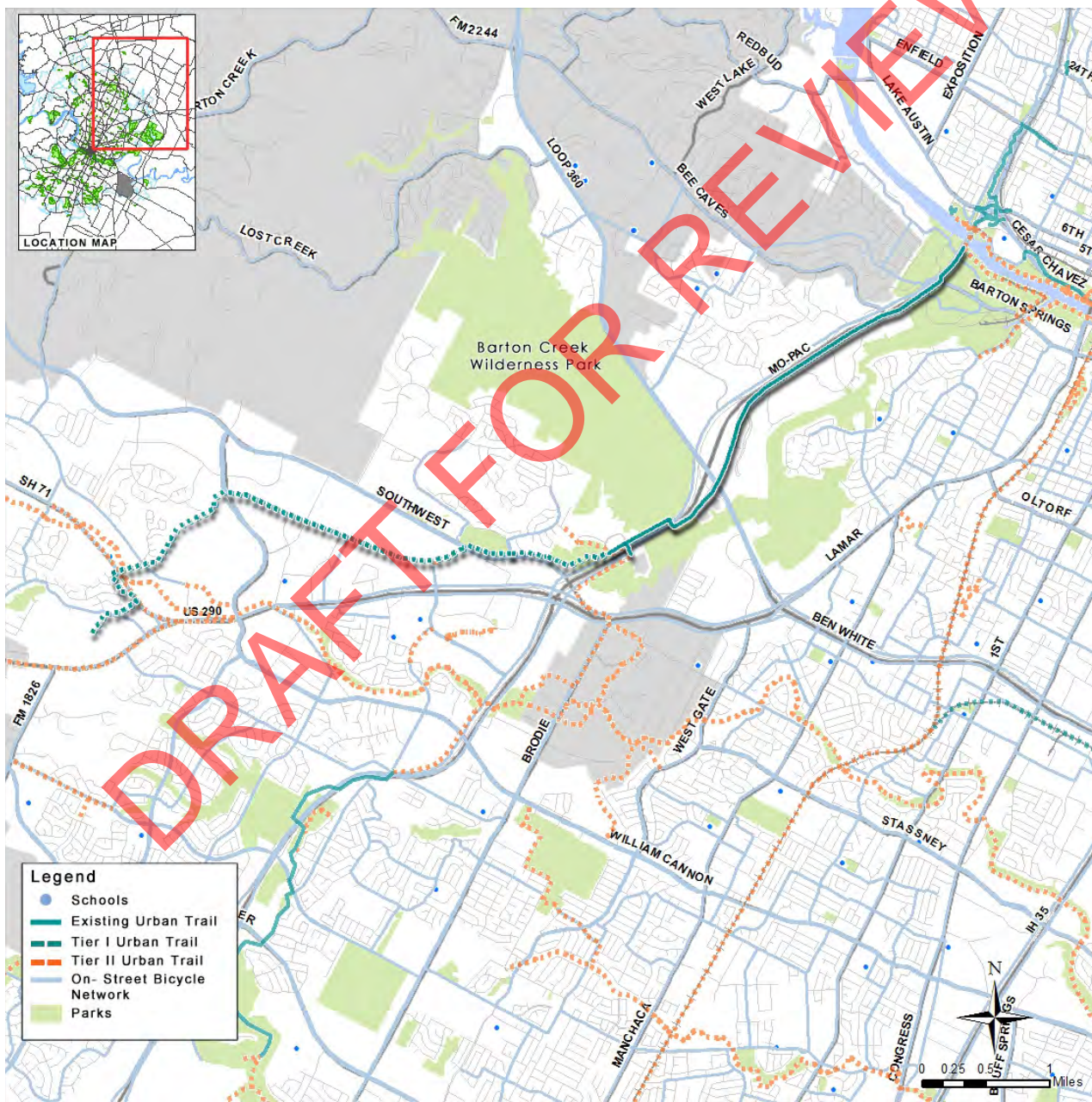
The Barton Corridor consists of the Stratford to Barton Springs Connector, the Mopac Bicycle and Pedestrian Bridge, and the proposed YBC Urban Trail.

The **Stratford to Barton Springs Connector** begins at Lady Bird Lake just east of Mopac and continues south for about 2.5 miles until Tuscan Terrace, near Loop 360 Highway.

The **Mopac Bicycle and Pedestrian Bridge** project includes three phases, providing protected bridge facilities over Barton Creek and Loop 360.

Phase I will construct a bicycle/pedestrian bridge over Barton Creek at Mopac Expressway and improve bicycle and pedestrian connections to Southwest Parkway, Loop 360 and the Violet Crown Trail. Phase II will construct a bicycle/pedestrian bridge over Loop 360 at MoPac. The first two phases are funded and construction is scheduled to be complete in 2015.

Phase III, which has not been funded yet, proposes a shared use path along the west side of MoPac connecting Loop 360 to Barton Creek Square Mall.



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a “no-build” option may be appropriate.

This project is a collaboration of Federal, State, Regional and City efforts. Phase 1 is made possible through Proposition 12 Congestion Management funds and Capital Area Metropolitan Organization (CAMPO) oversight. Phase 2 is funded through Surface Transportation and Metropolitan Mobility (STPMM) and also administered by CAMPO. These projects aim to alleviate congestion, promote healthy and environmentally-friendly transportation, and enhance access and connectivity of the Active Transportation Network.

The **YBC Urban Trail** would connect much of the Oak Hill and Barton Creek areas of Austin through a network of trails traversing the beautiful landscape parallel to US 290 and Mopac. Not only would it be a great asset for connectivity in this area, but it would build upon the Barton Corridor that could ultimately prove a safe, off-street route to Downtown Austin for everyone in this region. With the support of a pedestrian bridge over Barton Creek at the intersection of Highway 360 and Mopac, the trail will be able to overcome the largest obstacles that this projected alignment faces.

Providing a route in Southwest Austin will become more important in the near future as this area continues to grow. The YBC has already been funded to be designed and will hopefully become a reality in the near future as construction of the trail becomes funded.



The Stratford Trail.

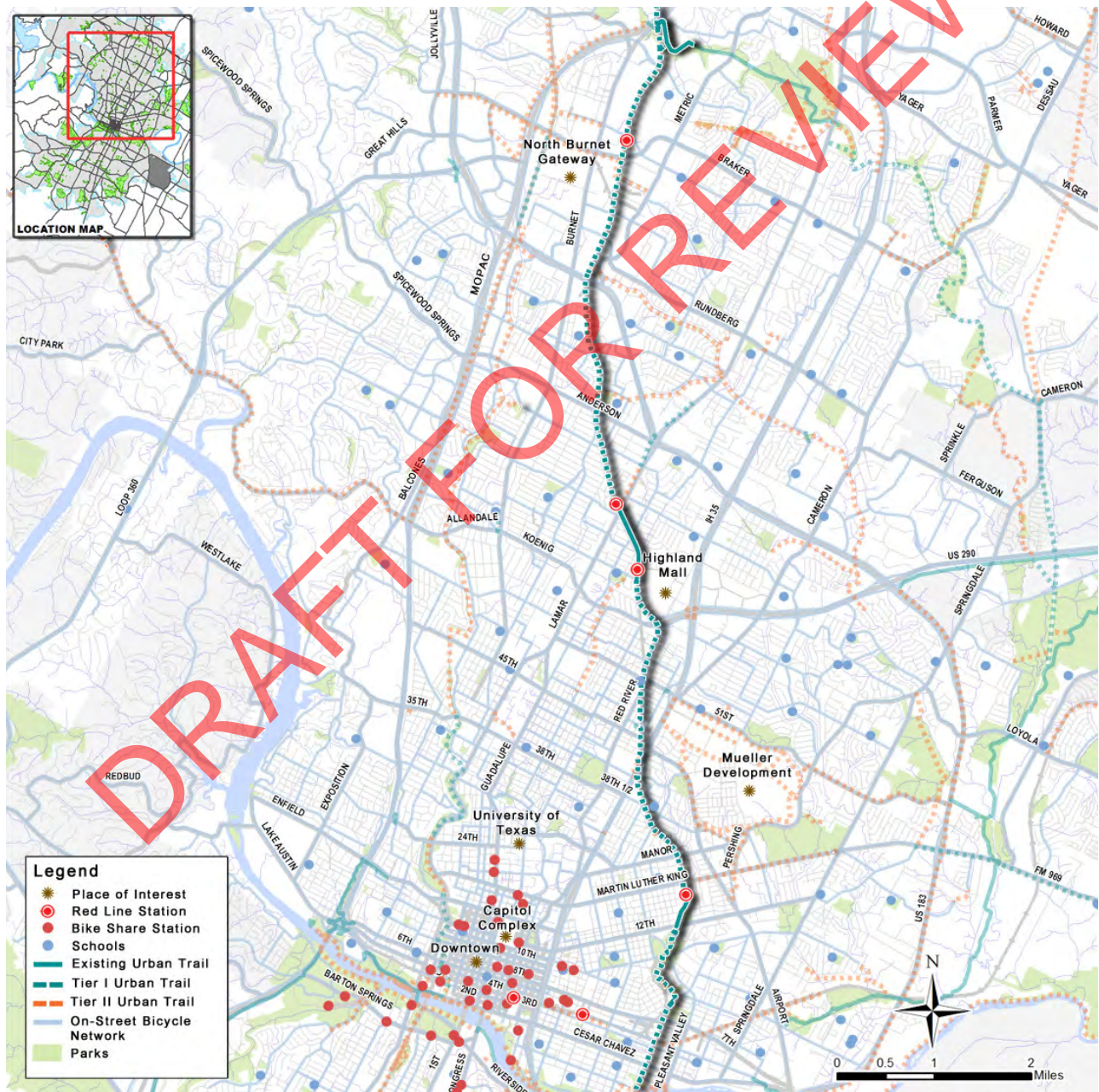


This rendering depicts the proposed design of the MoPac Bicycle and Pedestrian Bridge Project.

The Red Line Corridor is a well-established public transportation corridor, hosting Austin's sole MetroRail line. This corridor presents a great opportunity for North-South connectivity starting from Central East Austin and spanning the length of the city. It could link to the on- and off-street network including the LAB, public transit stops and bike share stations along the route. It has the potential to connect to myriad destinations including Downtown, Austin Community College and the North Burnet Gateway area.

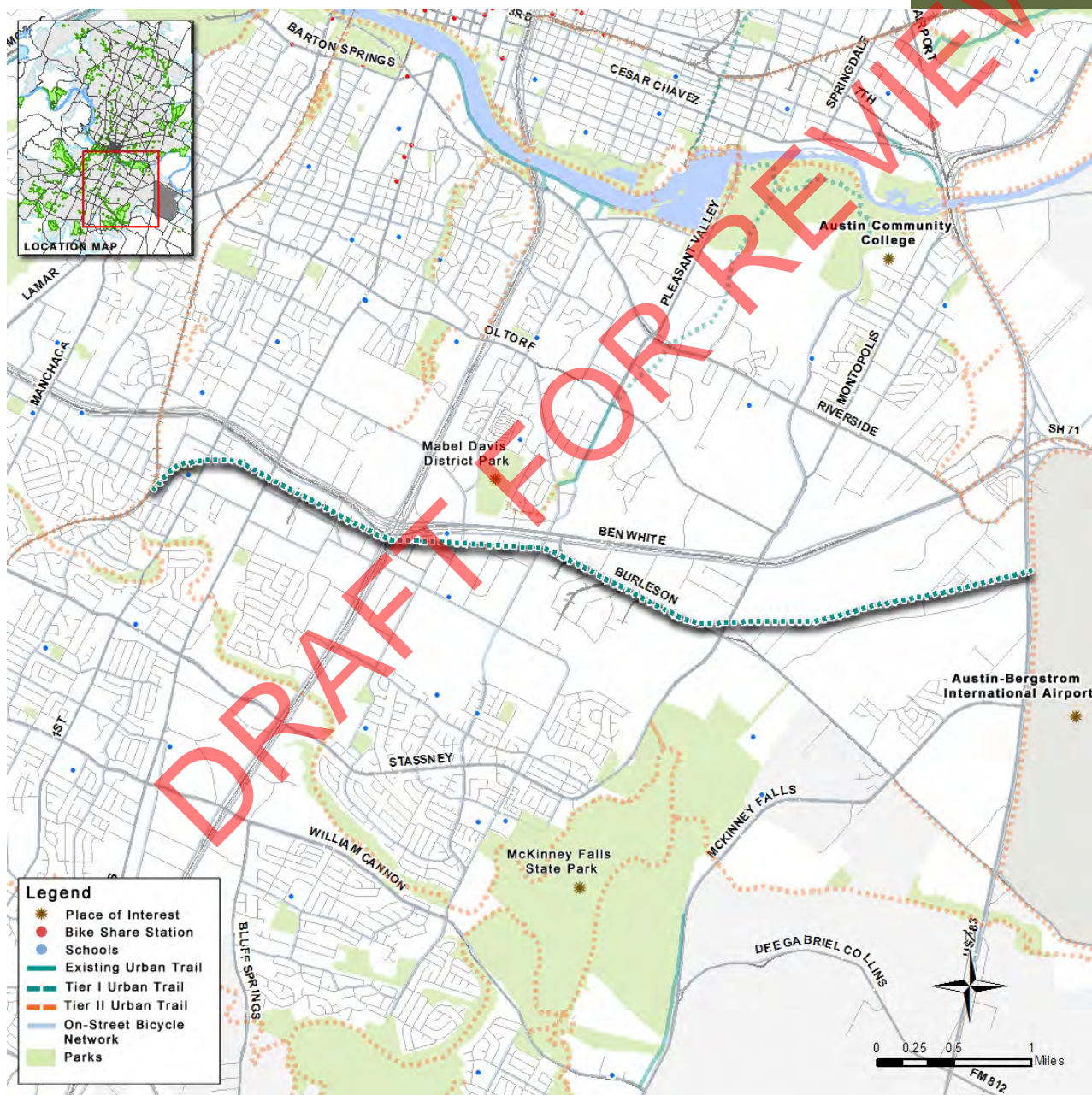


Council Member Chris Riley at the Highland Station Urban Trail Grand Opening in August 2013.



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The E Ben White Blvd. Rail Corridor is a prioritized route because it would greatly enhance the accessibility to Urban Trails in the Southeast area as well as improve connectivity. This corridor could span six miles, connecting to the proposed UPC/ASA Trail at S 1st St. to US 183. It would help neighborhoods in Austin that do not have many safe bicycle options by providing an East-West route and connecting to many North-South on- and off-street routes, including the Country Club Creek Trail, as well as provide a viable route the airport.



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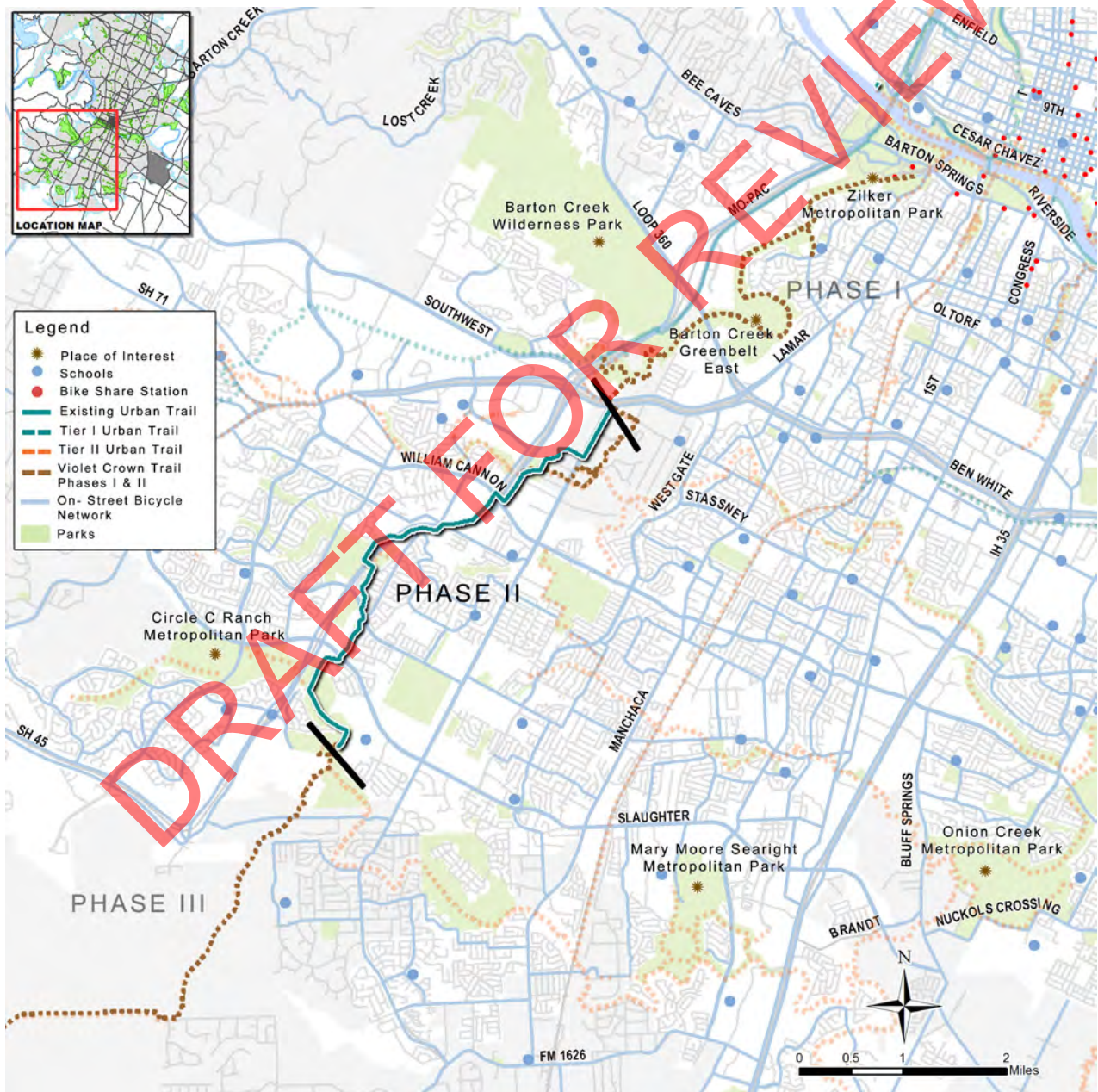
VIOLET CROWN TRAIL

The Violet Crown Trail exemplifies the benefits of a private public partnership. The following page provides an overview of this partnership.

Phase I - This six mile section is a nature path along Barton Creek. It is currently used as an alternate route from Zilker Park to the 360, 290 and Mopac Triangle in Oak Hill. This section of the Violet Crown will remain a natural surface trail and other adjacent routes along Mopac and Lamar will be identified to accommodate other non-motorized users.

Phase II - This seven mile segment will extend further South to the Lady Bird Johnson Wildflower Center and The Veloway. This trail segment represents the Urban Trail collaboration between the City of Austin and the Hill Country Conservancy.

Phase III - The last phase of this trail completes the Violet Crown Trail network of 30 miles. It will likely have a natural trail surface, serving a largely recreational purpose and encouraging the enjoyment and appreciation of the natural environment in our city.



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VIOLET CROWN TRAIL

"Once Hill Country land is gone, it's gone for good. When Hill Country Conservancy preserves it, it's here forever."

- The Hill Country Conservancy philosophy

The Hill Country Conservancy (HCC) was formed in 1999 in Austin to preserve natural land and enhance accessibility and connectivity of these areas. In 2008, the City of Austin and the HCC began working on the Violet Crown Project. A great example of private and public partnerships, the Violet Crown Trail project is possible thanks to many different entities working together, including:

- ◆ Hill Country Conservancy
- ◆ Texas Conservation Corps
- ◆ Austin Parks Foundation
- ◆ Austin Ridge Riders
- ◆ City of Austin
- ◆ City of Sunset Valley
- ◆ Hays County
- ◆ Hill Country Trail Runners
- ◆ Lady Bird Johnson Wildflower Center
- ◆ National Parks Service
- ◆ The Real Estate Council of Austin
- ◆ Texas Parks & Wildlife
- ◆ Texas Department of Transportation
- ◆ University of Texas McCombs School of Business

In 2010, the HCC published the Violet Crown Master Plan, which describes the organization's goals and details the three phases for the 30 mile trail.

The first phase of the project, from Zilker Park to Sunset Valley, is near completion and has a trail surface of either a natural surface or decomposed granite. Since Phase I is not a

hard surface trail it is not considered an Urban Trail and therefore not included in this plan. However, it is important to recognize other projects (or project phases in this case) that share similar purposes, goals and enhance non-motorized transportation and recreation connectivity.

Phase II is an Urban Trail. This phase is possible through Proposition 12 transportation and mobility bond funds, a federal transportation grant and collaborations between HCC and the Public Works Department. Construction is expected to be complete by 2016. It begins at US Highway 290 service road in the City of Sunset Valley and continues south along Brodie Lane. The trail will cross the MoPac Expressway near William Cannon Drive and continues south to Dick Nichols Park. It will cross MoPac again and connect to the Circle C Ranch Metro Park, the Veloway and the Lady Bird Johnson Wildflower Center.

The Violet Crown Master Plan proposes a third phase of the Violet Crown trail that would complete the 30 mile trail project. Consisting of 17 miles, this is the longest proposed phase and would connect the Lady Bird Johnson Wildflower Center down to the Onion Creek Management Unit. This trail section will likely be comprised of a natural surface or decomposed granite and therefore would not be considered an Urban Trail.

TXDOT SHARED USE PATHS

The Texas Department of Transportation (TxDOT) is required by law to accommodate pedestrians and bicyclists on all state funded and delegated federally funded projects within the project limits. The goal of this policy is to help create healthier communities, reduce air pollution, decrease congested roadways and promote more livable, safe and cost-efficient communities.

Guidelines for constructing such facilities include the Texas Accessibility Standards and Americans with Disabilities Act Accessibility Guidelines, AASHTO and TxDOT's Roadway Design Manual. In August 2013 the Federal Highway Administration issued a memorandum supporting AASHTO and NACTO guidelines.

Common practice for accommodating bicyclists along major TxDOT roads includes constructing a 14 ft. wide curb lane for shared automobile and bicycle use. With the recent statement from the FHWA supporting AASHTO and NACTO guidelines DOTs around the country will have the opportunity and challenge to reevaluate bikeway designs like protected, off-street paths.

The Urban Trails Master Plan endorses the construction of off-street, shared use paths to safely and conveniently accommodate bicyclists and pedestrians. The standards of these shared use paths should reflect the Urban Trails standards defined in this plan. The City of Austin should work with TxDOT to promote the inclusion of paths along major TxDOT roads. As TxDOT embarks on new projects in the Austin area we can work together to improve safe, efficient transportation options in the city. This collaboration has already begun with the US-290 and MoPac projects, which will be providing shared use paths.

Special Considerations for Implementation

Recommendations in this plan on TxDOT roadways warrants special consideration at the time of implementation. As mentioned before, while many of these roadways are within the City of Austin or the Extraterritorial Jurisdiction (ETJ) of this plan, the roadways are owned and

URBAN TRAILS, MULTI-USE PATHS, SHARED USE PATHS AND SIDEPATHS

AASHTO and NACTO use the term "sidepath" whereas TxDOT uses "shared use path" to refer to a multi-use non-motorized path adjacent to a roadway. The Urban Trails Master Plan embraces different terminology for the same end goal and infrastructure: an off-street, hard surface path which accommodates pedestrians and bicyclists.

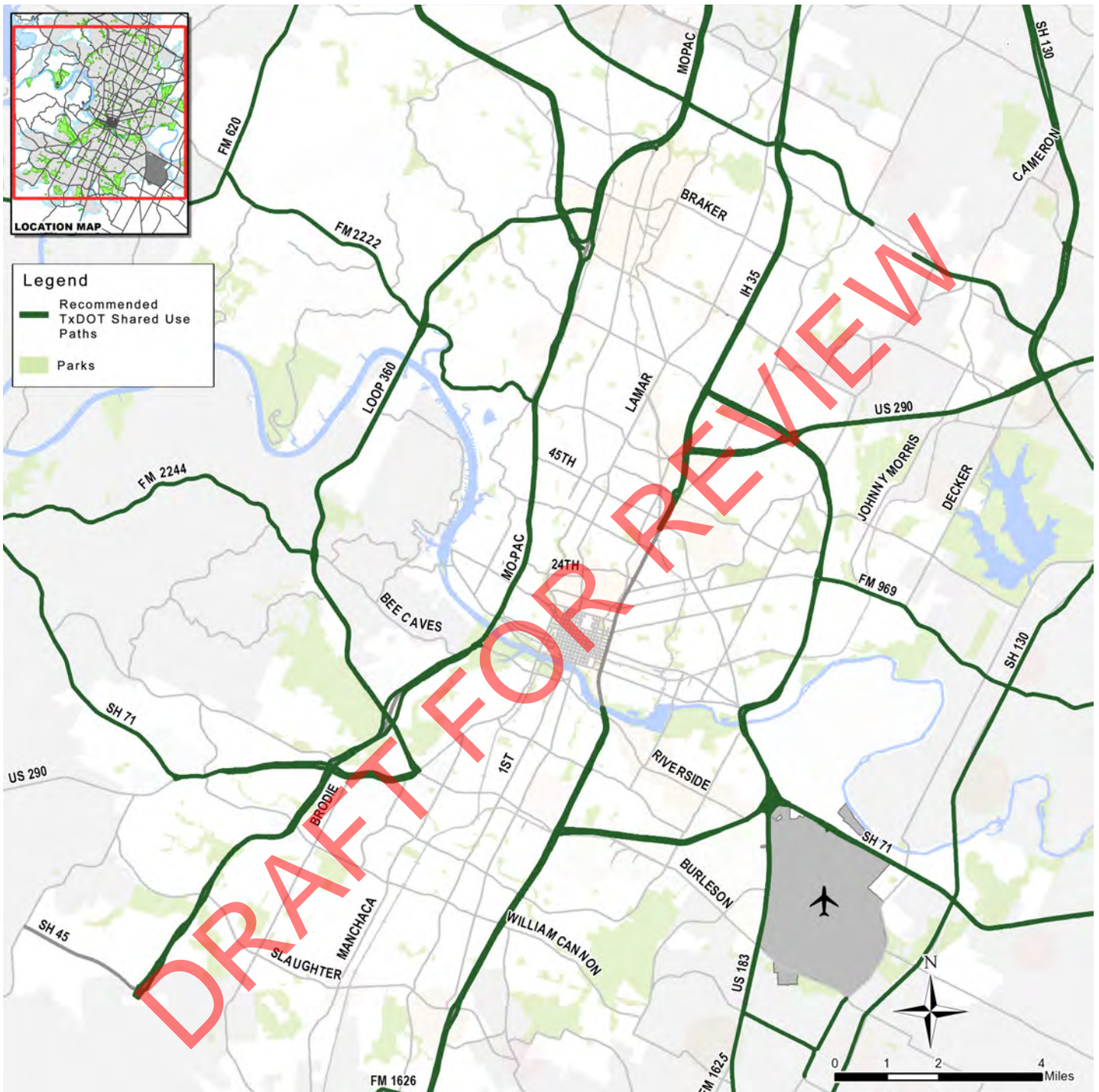
operated by TxDOT. Therefore the planning and implementation of projects on TxDOT represents a very different process and it is very important to have a clear understanding of how the Urban Trails Master Plan would affect TXDOT project delivery and scope as this could have significant potential consequences.

The intentions of the recommendations of the Urban Trails Master Plan are as follows:

- ♦ To capture best practice in accommodating bicyclists and pedestrians of all ages and abilities on Austin's roadway network, including TxDOT roadways.
- ♦ For the recommendations to be a resource during the development of projects along TxDOT roadways while *not* mandating a particular outcome.
- ♦ These recommendations serve as a resource for future roadway development with TxDOT ROW
- ♦ This plan acknowledges that TxDOT and City of Austin have different design standards, internal processes, public processes and implementation standards, and recommends working together to achieve the highest quality bicycle and pedestrian network to the extent practicable.

The map on the following page illustrates some of the TxDOT roads where a shared use path would enhance the health and safety of the community as well as increase the accessibility and connectivity of the Active Transportation Network.

RECOMMENDED TxDOT SHARED USE PATHS



Alignments shown are conceptual, and are intended to show geographic connectivity. More detailed routing, environmental evaluations and area connections will be developed for each corridor as funding is identified. Pending a more detailed analysis and adjacent, adequate bicycle/pedestrian facilities, a “no-build” option may be appropriate.

PARK TRAILS

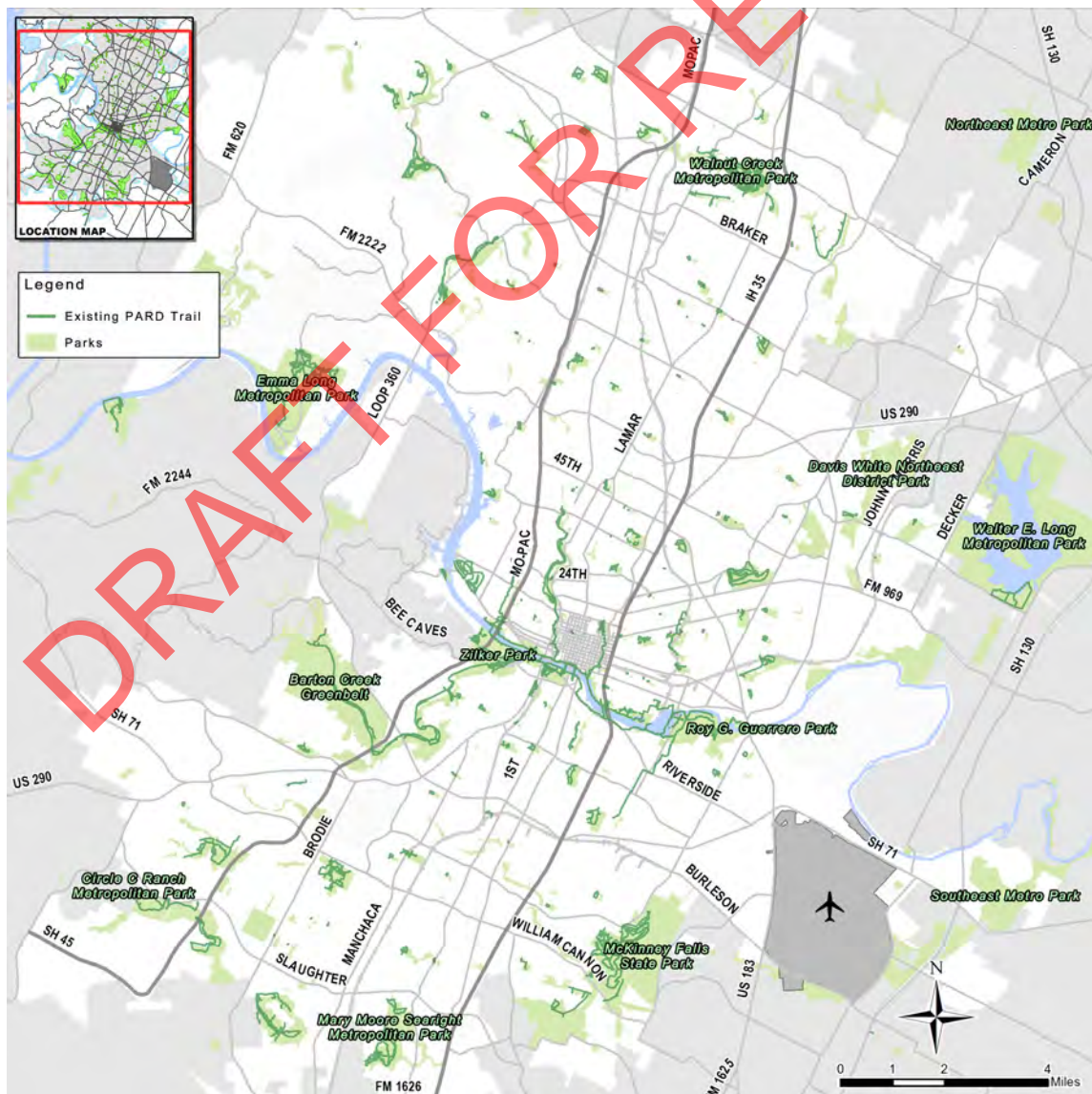
There are about 200 miles of trails under the purview of the City of Austin Parks and Recreation Department. These trails range from natural paths like the Barton Creek Greenbelt to decomposed granite trails like the Ann and Roy Butler Hike and Bike Trail. Six classifications of trail surface material exist in the Parks and Recreation trail directory. The majority of which have a Native Material trail surface, followed by a Hard Surface trail designation.

The Urban Trails Master Plan recommends nearly 50 miles of Tier I Urban Trails in Austin. The goal is to see these trails built out over the

course of the next 10 - 15 years.

An analysis looked into how many miles of natural surface or “Native Material” Parks and Recreation trails were considered as potential Urban Trails in this plan. The analysis specifically looks at the overlap of existing PARD Native Material trails and proposed Tier I Urban Trails. Less than two miles of Tier I Urban Trails are recommended in the Urban Trails Master Plan. These Tier I Urban Trail segments are located along the Northern Walnut Creek Trail and the Shoal Creek Trail.

EXISTING PARK TRAILS



CHAPTER 4: POLICIES & OPERATIONS

DRAFT FOR REVIEW



AUSTIN URBAN TRAILS MASTER PLAN

CHAPTER 4

POLICY & OPERATIONS



Shoal Creek Trail

RELEVANT POLICIES

From the federal to local level, policies affect the integrity and mechanisms of the Urban Trails Master Plan. This section reviews some of the more recent policy changes that may impact the design, placement and funding opportunities for Urban Trails in Austin.

Federal Policy Update

MAP-21 was enacted July 6, 2012, and replaced SAFETEA-LU as our national transportation policy and funding mechanism. The new law significantly reduces funds for pedestrian and bicycle projects, and includes notable legal and funding changes. It changes the way certain funds are allocated, ultimately making project funding more competitive and also allowing a state opt-out provision, which would cut funding in half for bicycle and pedestrian projects. Unlike under SAFETEA-LU, there is no dedicated project funding. Instead, MAP-21 combined Transportation Enhancements, Safe Routes to School and Recreational Trails into one program called the Transportation Alternatives Program (TAP), in which 2% of federal highway funds are reserved for projects defined as transportation alternatives, including Urban Trails. MAP-21 amended the Surface Transportation Program to permit projects that are eligible under the Recreational Trails Program to be eligible for STP funding.

The main changes that will impact federal funding for Urban Trails include:

- The grouping of projects and programs under the Transportation Alternatives Program (TAP)
- The provision for states to opt-out of funding the TAP

FHWA Memorandum

In August 2013, the FHWA issued a memorandum supporting the National Association of City Transportation Officials (NACTO) and the American Association of State Highway and Transportation Officials (AASHTO) guidelines. The memo encourages transportation agencies to go beyond minimum requirements and refer to NACTO and AASHTO facility designs. The significance of this federal endorsement will be felt in cities all over the country and state departments of transportation will have the opportunity and challenge to re-evaluate bikeway designs like protected bike paths.

CAMPO 2035

One of the main goals of the CAMPO 2035 Plan is to expand

investments in regional bicycle infrastructure. The plan provides a map with identified bicycle corridors, ranging from High – Medium – Low prioritization. CAMPO intends to allocate 50% of future Surface Transportation Program-Metropolitan Mobility funding for projects that support one of the 37 designated activity centers.

During their public input process, CAMPO found that nearly half of participants supported transportation investments on non-motorized options. One of the top three concerns of participants included the need for infrastructure and access to downtown areas. CAMPO 2035 and the Urban Trails Master Plan share similar goals to increase alternative transportation infrastructure in the Austin area. The people of Austin want better facilities and support investments in the Active Transportation Network.

Imagine Austin

The award-winning Comprehensive Plan, *Imagine Austin*, calls for a compact and connected urban environment. The plan received an Award for Excellence in Sustainability from the American Planning Association in 2014. Recognizing the incredible growth Austin has been experiencing and the opportunities ahead, one of the plan's goals is to provide better transportation choices. *Imagine Austin* introduces a shift in focus from promoting a friendly coexistence of bicyclists in Austin to maximizing the contribution of bicycling to amplify Austin's quality of life.

The Urban Trails Master Plan addresses the goals of *Imagine Austin* to be sustainable, provide better transportation options, protect the environment and enhance bicycle infrastructure. People in Austin believe one of the main benefits of investing in the Active Transportation Network is increasing their quality of life. This plan strives to increase the connectivity and accessibility of trails throughout the City.

Watershed Protection Ordinance

The new Watershed Protection Ordinance (WPO) was passed in October 2013 and provides important guidance for the Urban Trails Master Plan. The intent of the new ordinance is to protect area watersheds through clear policy and guidance. It identifies problems such as not enough setback distance,

"Urban trails serve recreation and transportation functions, including biking and hiking, and also provide important environmental benefits by creating open space linkages and expanding the City of Austin's green infrastructure network."

- Imagine Austin



AUSTIN URBAN TRAILS MASTER PLAN

Goal: Improve the urban environment by fostering additional beneficial uses of waterways and drainage facilities.

Objective: Maximize the use of waterways and drainage facilities for public recreation; and, Maximize areas for public use within floodplains.

- Watershed Protection Department Master Plan Goals and Objectives

too much water runoff, too little baseflow and too many pollutants. Solutions include detailed Erosion Hazard Zones, impervious cover limits, green infrastructure and pollution source controls. The Urban Trails Master Plan helps the Watershed Protection Ordinance achieve its goals by creating opportunities to provide green infrastructure and reducing transportation pollution through the enhancement of non-motorized transportation. The WPO encourages multiple use of waterways and drainage facilities.

One of the Watershed Protection Department's goals is to improve the urban environment by maximizing use of waterways, drainage facilities and floodplain areas for public recreation. Urban Trails represent a great example of how this can be achieved. The WPO does not consider Urban Trails a threat to water runoff problems and excludes Urban Trails from the definition of impervious surface. Urban or "multi-use" trails should be constructed outside the Erosion Hazard Zone unless protective works are provided. This means if the trail is close to the Erosion Hazard Zone it must be armored to protect the creekbed. This "avoid or protect" practice provides a financial disincentive to building a trail within the Erosion Hazard Zone because of the prohibitively high cost of constructing protective works. Trails may cross a critical water quality zone (CWQZ) of any waterway. The ordinance restricts trail width to 12' maximum unless a wider trail is designated in this Urban Trails Master Plan. The trails in this master plan that are within greenbelts are only recommended to be over 12' in width if the density of the trail and number of potential users justifies needing a wider trail than the standard. Urban Trail width will be determined on a case-by-case basis during the design phase of each project.

Heritage Tree Ordinance

The Heritage Tree Ordinance was adopted in 2010 to enhance and preserve a healthy urban forest. The ordinance defines a Heritage Tree as a tree that has a diameter of 24 inches or more, measured four and one-half feet above natural grade, and is one of the following tree species (though the list is subject to supplementation): Texas Ash, Bald Cypress, American Elm, Cedar Elm, Texas Madrone, Bigtooth Maple, all oaks, Pecan, Arizona Walnut and Eastern Black Walnut. A Heritage Tree may not be removed unless the Planning and Development Review Department or the Land Use Commission grants a variance, which may occur only after earning the recommendation of the City Arborist. Some of the existing Urban Trails in Austin were built before the Heritage Tree Ordinance, but all future trail development will be subject to the new law.

Land Development Code

The City of Austin is currently updating its Land Development Code.

This endeavor arose out of the *Imagine Austin* Plan and will promote the goals of making Austin compact and connected, integrated with nature, more affordable, and healthier through future land development. The code rewrite process will provide a more updated, streamlined policy by creating the framework for smart, sustainable development.

Complete Streets

In December 2013 the Austin City Council passed Resolution No. 20131212-080 which calls for the implementation of a Complete Streets policy. The *Imagine Austin* Comprehensive Plan was pivotal in starting this process, calling for “complete street design that includes features such as traffic calming elements, street trees, wide sidewalks, and pedestrian, bicycle, and transit access throughout Austin, considering the safety needs of people of all ages and abilities.”

In June 2014 Austin City Council adopted the Complete Streets Policy.

Austin, Texas Technical Criteria Manuals

The City of Austin’s Technical Criteria Manuals were created to interpret and clarify the requirements set forth in the Land Development Code. Organized by discipline, three manuals of great importance and relevance to the Urban Trails Master Plan include:

- ◆ Environmental Criteria Manual
- ◆ Drainage Criteria Manual
- ◆ Transportation Criteria Manual

Other Relevant Policies

Considering the Urban Trails Master Plan aims to improve pedestrian and bicycle infrastructure and connectivity, it is essential to coordinate with other citywide endeavors. These plans should complement and enhance each other rather than duplicate efforts. Major relevant planning efforts include:

- ◆ Bicycle Master Plan
- ◆ Sidewalk Master Plan
- ◆ Parks and Recreation Long Range Plan for Land, Facilities and Program
- ◆ Downtown Austin Wayfinding Plan
- ◆ Austin Urban Forest Plan



AUSTIN URBAN TRAILS MASTER PLAN

◆ Protected Tree Ordinance

Previous Efforts

In 2008, the Trails Master Plan workgroup was formed, following the directive by City Council that there should be interdepartmental collaboration to coordinate pedestrian and bicycle connectivity efforts by multiple departments including Parks & Recreation, Public Works, Watershed Protection, Planning and Development Review, and Austin Water Utility. This resolution is included in Appendix D of this plan. The Urban Trails Working Group was pivotal in activating discussions on the creation of an Urban Trails Master Plan.

The Urban Trails Master Plan recognizes the efforts of the Urban Trails Working Group as fundamental to the inception of this plan.

LINKING TO THE ON-STREET PEDESTRIAN AND BICYCLE NETWORK

The Urban Trails network is intended to integrate with the on-street pedestrian and bicycle network to create a comprehensive network of active transportation facilities. Therefore, coordination with departments and agencies involved with development of on-street facilities is critical to implementing and maintaining the Urban Trails component of the entire Active Transportation Network.

The overall Active Transportation Network can be compared to the roadway network for vehicles, in that Urban Trails are like “arterial roadways” meant to carry people for longer distances to get to citywide destinations, and the on-street facilities serve as “local collectors” to provide access to the Urban Trails from their neighborhoods or their destinations.

Key points to consider when connecting Urban Trails to the on-street network include:

- ◆ As a regulatory document, the recommendations of this plan will be considered when development review occurs. This will include review by the Transportation, Watershed, and Planning Departments.
- ◆ To help facilitate connections between the on-street and Urban Trails networks, create and implement a wayfinding plan that directs bicyclists and pedestrians between the networks.
- ◆ Ensure that Urban Trails are available for commuters traveling before dawn or after dark.

PARTNERSHIPS WITH OTHER DEPARTMENTS AND AGENCIES

Interdepartmental and interagency collaborations are a critical component of developing a regional network of Urban Trails, and achieving the goals and objectives of this plan. Moreover, many federal-aid funding opportunities require cooperation among local and regional entities in developing and implementing goals. By partnering with other agencies and organizations, funding resources can be utilized more efficiently. The City of Austin and surrounding communities must work together to implement a connected Urban Trail network that does not become victim to political boundaries.

Some recommendations in this plan will require partnerships and collaboration with other City departments, municipalities, agencies, and organizations across the region. The Public Works Department should coordinate with these bodies where necessary to implement the Urban Trails Master Plan by identifying and pursuing funding partnerships and support from other departments, agencies, and organizations. A great example of a successful public private partnership is the Boardwalk Trail at Lady Bird Lake. The Public Works Department, Parks and Recreation Department and the Trail Foundation worked together to make the project a reality and connect the most popular trail loop in Central Austin. Table 4.0 summarizes potential partnership opportunities with departments, agencies, and organizations.

Table 4.0 Interdepartmental and Interagency Partnership Opportunities

Department/Agency	Partnership Opportunity
COA Parks & Recreation Department	Access, public land use, shared maintenance, shared programming, trees and vegetation, wayfinding, education, on-street to trail connections
COA Transportation Department	On-street to trail connections
COA Watershed Protection Department	Urban Trails within creekways, coordination with environmental constraints
COA Capital Improvements Management Services	Future bond initiatives
Lower Colorado River Authority (LCRA)	Coordinate trail efforts where appropriate
COA Planning Department	Integrate Urban Trail components and connections into planning documents, communicate and collaborate on the Wayfinding Project, integrate review for Urban Trails into development review



AUSTIN URBAN TRAILS MASTER PLAN

Table 4.0 Interdepartmental and Interagency Partnership Opportunities

Department/Agency	Partnership Opportunity
COA Police Department, EMS, and Fire Department	Enforcement, emergency response
Capital Metro	Integrate Urban Trails and transit, rails-to-trails opportunities
CAMPO	Federal funding opportunities, assistance with coordinating with other municipalities, identifying regional transportation goals and recommendations
TxDOT District Office	Implementing Urban Trails, or sidepaths, along TxDOT roadways, transportation enhancement grants
Travis County/Surrounding Counties	Implementing Urban Trails along county roads
Area Municipalities	Implementing trails in other jurisdictions that connect to Urban Trails network in Austin
Austin and other local ISDs	Education and encouragement programs targeting school-aged children, implementing trail connections to schools
University of Texas at Austin and other universities	Education and encouragement programs targeting college and university students; implementing trail connections with direct access to and on campus
Local Bicycle Shops	Education , safety, etiquette and encouragement programs, map distribution
Advocacy groups	Advocacy groups such as Bike Austin, Bike Texas, the Ghisallo Foundation, the Austin Heritage Tree Foundation, the Sierra Club, the S.O.S. Alliance, and the Shoal Creek Conservancy can provide policy guidance, education and safety programs, support projects and raise awareness and encouragement of non-motorized transportation.
Non-Profit Organizations	Organizations such as the Trail Foundation can help with financing, design and raise support for trail projects
Private developers	Construction of trails and trail connections that meet the standards set in this plan and/or collaboration or partnership in the provision of appropriate ROW or easement for trail construction.

THE WALLER CREEK PARTNERSHIP

The Waller Creek Conservancy serves as the steward of Waller Creek by playing a vital role in the preservation, redevelopment and maintenance of the creek's surrounding parks, nearby businesses, adjoining neighborhoods and community at large. Transforming Waller Creek starts with creating a healthy eco-system, one that inspires connectivity and collaboration between the most fundamental aspects of Austin's collective identity.

One of the most critical parts to revitalizing the creek is the Waller Creek Tunnel, one of the largest infrastructure projects in Austin's history. The tunnel enhances a 28-acre stretch—a landmass equivalent to 11 percent of downtown Austin—from underutilized floodplain land to a leading amenity for the city. Construction is scheduled to be complete in 2014.

Teamwork

In 2010 the Waller Creek Conservancy formed as a non-profit entity to facilitate and aid the City regarding enhancement and development of the Waller Creek District. City Council approved Resolution 20100923-090 creating the public-private partnership with the Conservancy in charge of development, management and operation of the Waller Creek District. Through the creation of the Waller Creek Local Government Corporation and the Joint Development Agreement, the City has entrusted the Waller Creek Conservancy to realize the vision of creating a green oasis in Downtown Austin.

Waller Creek begins just north of the University of Texas campus and meanders along Red River Street through Downtown Austin for 1.5 miles.



Map Source: Waller Creek Conservancy

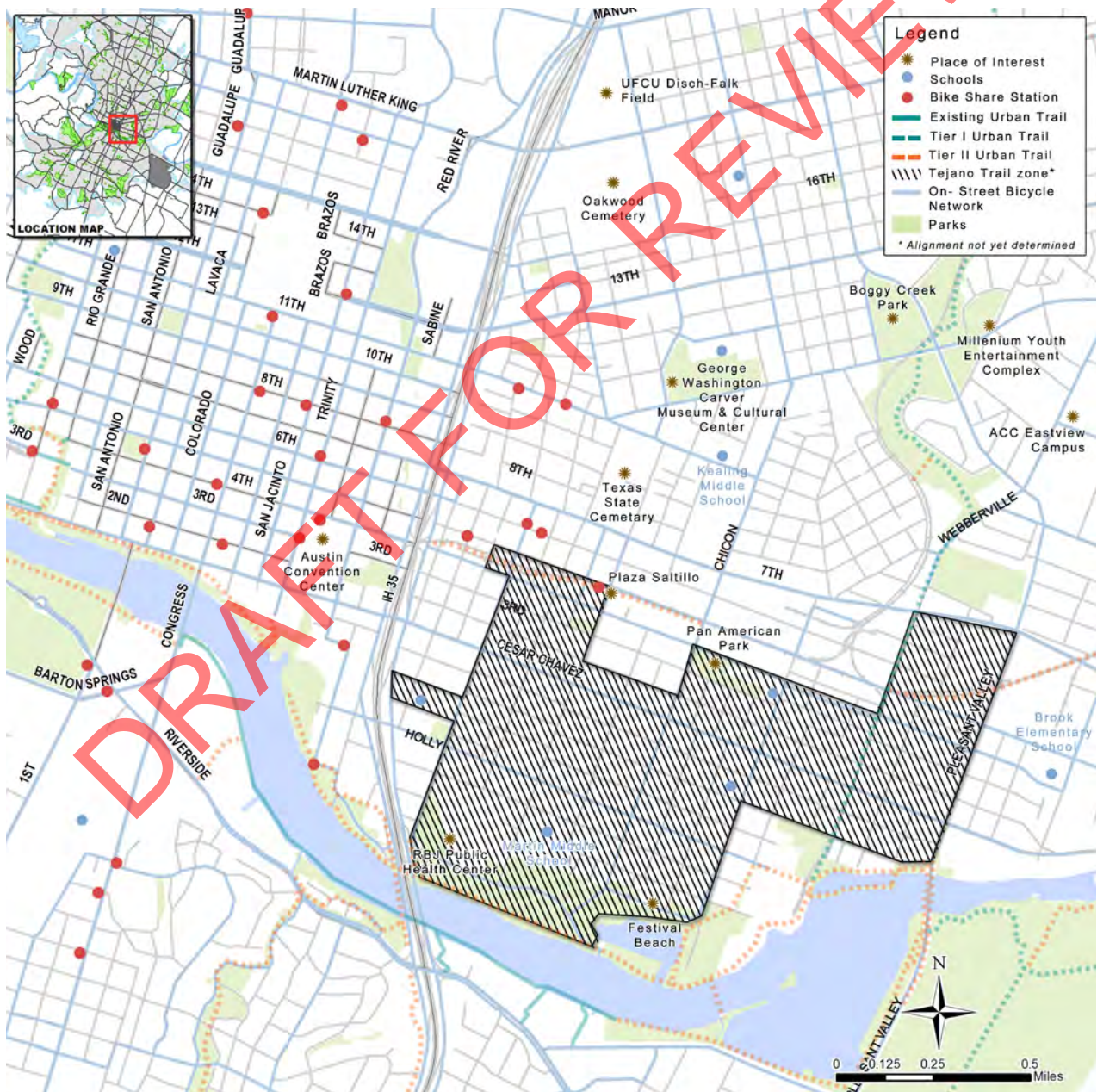


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THE TEJANO TRAIL PARTNERSHIP

The Tejano Trail is another example of a unique partnership in Austin. It is a cultural trail in Central East Austin that connects almost 40 sites of interest along the way. Currently the trail stakeholders are working with the National Park Service to determine an ideal route to incorporate these sites of interest. The Tejano Trails will

consist of an ADA compliant sidewalk along roadways. Adding pavement markings and wayfinding will designate this trail as a unique, cultural Urban Trail.



THE TEJANO TRAIL

The Tejano Healthy Walking Trail was developed by East Cesar Chavez Neighborhood leaders who wanted to accomplish three goals established in the official Neighborhood Plan:

1. Preserve historic structures and affordable homes. This Trail recognizes native families' contributions to build Austin into the Live Music Capital of the World. This historically working class neighborhood is adjacent to downtown Austin and sits 10 blocks from the Texas Capitol and 15 blocks from the UT Austin Campus. The neighborhood is in transition from being a low-income, minority community into a desirable location for young professionals and new urbanists. Our concern for native neighborhood people, especially retirees struggle to keep up with rising taxes to stay in their family homes, leads us to believe that educating younger family members might help keep their family roots in the neighborhood.

2. Educate speculators and newcomers about the historic assets in hopes they might choose to upgrade old structures rather than destroy them. Many have stood for over 100 years and define the neighborhood character. Distribution of the Trail Guide and getting access to it online has helped those who couldn't walk it themselves.

3. Encourage a healthier lifestyle, especially for youth and seniors who rarely walk, bike or exercise. The Trail is promoted at four schools, two health clinics, community gardens, the AB Cantu Pan American Recreation Center, Camacho Youth Activity Center, adjacent libraries, and the East Austin Neighborhood Center - all identified on the Trail Map.

The Tejano Walking Trail Guide includes the Trail of Tejano Music Legends which was created in 2005 and is a project of the Austin Latino Music Association. This Trail Guide

describes almost 40 sites considered historical, cultural, or community gems in the East Cesar Chavez Neighborhood. It's a labor of love by volunteers who mapped out the Trail, conducted research, and gathered descriptions. Five thousand copies of the Trail Guide were published with a City of Austin's Neighborhood Enhancement Fund. Almost all of the copies have been distributed, sparking the interest of donors willing to help publish a 2nd edition.

On August 8, 2011 the Austin City Council passed resolution number 20110804-022, directing the City Manager to work with residents of the East Cesar Chavez Neighborhood to pursue recognition of the Tejano Trails as National Recreational Trails by the United States Secretary of the Interior. The City of Austin along with the East Cesar Chavez Neighborhood applied for and received the designation of the Tejano Walking Trails as a National Recreation Trail on May 30, 2012.

The designation of the Tejano Walking Trails as a National Recreational Trail enabled the neighborhood to receive a planning grant from the National Parks Service's Rivers, Trails, and Conservation Assistance program (RTCA). The dedicated RTCA planners assigned to work with the neighborhood, in partnership with the City of Austin and other key stakeholders are now working on a strategic plan that will expand the number of sites on the Trail, improve its walkability and signage, and develop interpretive walking tours.

Source: Lori Renteria and the Tejano Trails Working Group

Upon completion of the Urban Trails Master Plan and the RTCA, staff recommends that the Tejano Trails working group seek approval by City Council to include the Tejano Trail Plan as either an amendment or an appendix to this plan.

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CHAPTER 5: IMPLEMENTATION PLAN

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AUSTIN URBAN TRAILS MASTER PLAN

CHAPTER 5

IMPLEMENTATION PLAN



City of Austin Concrete & Asphalt Crew

URBAN TRAIL PRIORITIZATION

As shown in the previous chapters, there are many opportunities for Urban Trails in Austin. Over the next two to three decades, it is anticipated that many of those opportunities can actually be developed. However, in order to maximize potential it is important to understand the elements that feed into development and create a strategic approach. This strategy will help guide the City's efforts to provide the most significant beneficial impact of a citywide Urban Trails network.

This chapter describes the many components of the implementation process. While the City of Austin has built trails for many decades, there has never been a citywide plan that has been approved and reviewed interdepartmentally (the Parks and Wildlife Department, Parks and Recreation Department, Planning and Development Review, Watershed Protection Department, Austin Water Utility, Emergency Medical Services, and the Austin Police Department) and also by multiple jurisdictions: i.e. the Texas Department of Transportation and Capital Metro.

The Urban Trails Master Plan calls for a preliminary round of prioritization that is based on current City Code, standards, and policies. One objective of the UTMP is to consolidate past trail planning and implementation efforts. This prioritization method does this by plugging in a database of potential, conceptual routes developed from existing trail plans and public feedback received during the UTMP public input process. It prioritizes those routes based upon the aforementioned existing plans and policies as well as four main criteria described in this chapter. The method produces a Tier I and II ranking of Urban Trail prioritization.

These priority rankings are meant to help guide Urban Trail development in the short and long term. As opportunities arise, whether from various City departments, non-profit organizations or developers, an understanding of route prioritization is essential to create an accessible, connected and equitable trails network. Prioritization rankings are based on four main elements: proximity to attractions/destinations, surrounding residential population density, connectivity and community support. Availability of funding, feasibility of construction and environmental constraints are also major factors that will determine the outcome of every trail project. These factors are analyzed after trail prioritization during the Preliminary Engineering Report process.

Tier I Urban Trails are recommended to be initiated or completed within fifteen years. These are projects that are considered to be the most vital to enhancing the Urban Trail system and overall Active Transportation Network in the short term. Tier II projects also demonstrate accessibility, connectivity and community support but do not have a real time frame for construction because of funding constraints and/ or demonstrate valuable connections or opportunities to keep open for future development. The Prioritization Criteria Matrix is depicted in table 5.1.

The prioritization criteria is based on these four elements:

- ◆ **Proximity to Attractors/Destinations** - The purpose of a transportation corridor is to get people places. Proximity to major employers, schools, parks and transit are essential for making a successful trail. (155 total points possible)
- ◆ **Residential Population of Census Tract Within 1/2 Mile** - High population density around an Urban Trail increases accessibility and the potential usage for that corridor. Five population density categories are available within this criteria element, and areas within 1/2 mile of an Urban Trail with a population greater than 8,000 people per census tract will earn 100 points. (100 total points possible)
- ◆ **Connectivity** - One of the most crucial components to any efficient transportation system is connectivity. In this case, connectivity is measured by linkages to other trails, the on-street pedestrian or bicycle network, or whether the trail creates a connection where a barrier previously prevented non-motorized users from continuing their path of travel. (100 total points possible)
- ◆ **Community Support** - Through the many public involvement processes that are conducted in all parts of Austin, residents may express interest or support for specific trail facilities. (50 total points possible)

FUNDING STRATEGIES FOR URBAN TRAILS

Funding availability is a major determinant for implementation and timing of trail development. Funding for Urban Trails should be treated as a key item in both annual and longer term budgeting. A steady stream of funding is recommended so that the Urban Trail network can



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Table 5.1 Prioritization Criteria Matrix

Criteria		Points	Score
Proximity to Attractors/Destinations	Check all that apply		
3 or more Major Employers within 1/2 mile from route (Major Employer = over 250 at one location)	<input type="checkbox"/>	30	0
3 or more public and private schools (grades K-12) within 1/2 mile from trail	<input type="checkbox"/>	25	0
Transit Facility within 1/2 mile (BRT, Rail, Bus, Park and Ride)	<input type="checkbox"/>	20	0
Direct access to Bike Share	<input type="checkbox"/>	5	0
Direct access to Central Business District	<input type="checkbox"/>	20	0
Direct access to University of Texas or any other higher education institution	<input type="checkbox"/>	20	0
Direct access to public places (parks, libraries, other civic uses)	<input type="checkbox"/>	20	0
Direct access to Imagine Austin Centers	<input type="checkbox"/>	15	0
Total			0
Residential Population of Census Tract Within 1/2 mile	Check Only One		
Population > 8,000	<input type="checkbox"/>	30	0
Population ≥ 4,000 < 8,000	<input type="checkbox"/>	25	0
Population ≥ 1,000 < 4,000	<input type="checkbox"/>	20	0
Population ≥ 500 < 1,000	<input type="checkbox"/>	15	0
Population < 500	<input type="checkbox"/>	10	0
Total			0
Connectivity	Check all that apply		
Completes barrier in trail	<input type="checkbox"/>	50	0
Completes gap in existing on-street sidewalk or bicycle facility	<input type="checkbox"/>	30	0
2 or more existing or planned trails connected by the proposed trail	<input type="checkbox"/>	20	0
Total			0
Community Support	Check all that apply		
Recommended by another adopted plan	<input type="checkbox"/>	30	0
Adopted in Neighborhood Plan	<input type="checkbox"/>	20	0
Total			0
Grand Total			0
		Out of 335	
		0%	

grow and improve on a continuous basis. A broad range of funding mechanisms, from both the public and private sectors should be considered. Recommendations for funding are as follows:

General Obligation Bond Funds - Bond funds are typically the primary source of significant trail development efforts. The larger capacity of these funding sources allows for more development to occur.

CIP Funds - An annual set-aside amount in the City's Capital Improvement Program (CIP) could be used to fund the Urban Trails network. These funds could also be leveraged as a match for state and federal grants when those become available.

Parkland Dedication Funds - Funds generated by new development can be used to help develop nearby trails. These funds are accrued in lieu of parkland.

Special District Funding - Funding from special districts, other new public improvement areas, or tax increment financing areas can be used to help develop trails.

4B Tax - 4B Sales Tax can be used for projects that improve a community's quality of life, including parks, professional and amateur sport and athletic facilities, tourism and entertainment facilities, and other improvements or expenditures that promote new or expanded business activity that create or retain primary jobs.

Private Residential or Commercial Development - Many of the Urban Trails noted in this master plan are located near residential communities or adjacent to commercial or business areas. As such, trail segments associated with either existing or new development could be partially or entirely built by the private development community.

Grants From a Variety of Sources - Grants that can be used for trail development are available from a variety of sources. Given the compelling local issues of traffic congestion and air quality, as well as a large local population that supports alternative transportation methods, local pursuit of grants could be successful and should be aggressively pursued. Major grant types include:

- ◆ **Texas Parks and Wildlife Department Grants** - Through its outdoor recreation and community trail development grants, these matching grants can provide from \$50,000 to \$500,000 in grant assistance.
- ◆ **Transportation Alternatives Program** - Under the new Federal



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policy, MAP-21, the previous Transportation Enhancements, Safe Routes to School and Recreational Trails programs are combined into one. Under this new program, 2% of federal highway funds are reserved for projects defined as transportation alternatives, which includes trails.

- ◆ **Regional Surface Transportation Program (RSTP)** - This is a block grant program that makes money available statewide for roads, bridges, transit capital, and bicycle and pedestrian projects. Applicants eligible for RSTP funds include cities, counties, Metropolitan Planning Organizations (MPOs), transit operators, and the Texas Department of Transportation. Nonprofit organizations and special districts also may apply for funds, but they must have a city, county or transit operator sponsor and in some cases administer the project.
- ◆ **Highway Safety Improvement Program (HSIP)** - This is a federal safety program that provides funds for safety improvements on all public roads and highways. These funds serve to reduce traffic fatalities and serious injuries on all public roads.
- ◆ **Foundation and Company Grants** - Some assist in direct funding for trail projects, and some support efforts of nonprofit or citizen organizations.
- ◆ **Grants for Greenways** - This is a national listing that provides descriptions and links to groups who provide technical and financial support for greenway interests.
- ◆ **Neighborhood Partnering Program** - In support of *Imagine Austin*, the Neighborhood Partnering Program (NPP) provides opportunities for community and neighborhood organizations to affect public improvements by sharing in the costs of those efforts with the City of Austin government.

OPPORTUNITIES FOR FUTURE URBAN TRAILS

Incentives for Development - Austin continues to experience rapid growth and development. Urban Trails can be considered an asset for neighborhoods, and incentives should be provided to encourage private developers to build trails, in particular if they have been previously identified in the Urban Trails Master Plan or if existing features occur that create a favorable location for an Urban Trail. Private sector developments should be carefully reviewed to determine if key trail corridors shown in this plan can be integrated into the proposed development.

Major public works improvements such as new development or drainage facilities can provide an opportunity for trail development. When large new public facilities are being built, trail connection opportunities along their edges should be considered. Drainage channels can be planned in such a manner that they include trails along one or both sides, and can be oriented so that adjacent homes are not impacted.

Every effort in the City, whether private or public, whether funded by the City or by another agency, should be evaluated early on as a potential Urban Trail candidate. Adequate right of way or recreational elements should be acquired early so as to provide corridors for trails and access points to existing Urban Trails. It is extremely difficult to retrofit trails once development around it has occurred.

Many options are available to the City, public agencies, nonprofit groups, and private landowners to ensure the protection/reservation of these critical trail corridors. The objective of the Urban Trails Master Plan is to provide a menu of available options to both public agencies and private landowners, promoting flexibility and creativity in the negotiation process. Careful crafting of transactions between private landowners and public agencies can and should produce mutually beneficial results.

The use of Parkland Dedication requirements could be justified on the basis of providing an Urban Trail to both the public and residents of the site that provides all ages and abilities access through the use of active transportation to nearby parkland. If the Urban Trail were not built, access to nearby parks, especially those out of easy walking range, may become more motor vehicle dependent, with a potential result of greater parking needs that ultimately degrade these parks. One issue with parkland dedication requirements is obtaining land for parks instead of fee in lieu. In developing the proposed policy changes it will be important to preserve the principal intent of parkland dedication requirements for obtaining land for parks.

Trail Development Ordinance - Consideration of a trail development ordinance is recommended by the Urban Trails Master Plan. Similar ordinances have been enacted in other cities in Texas, and have proven successful in helping to get trails constructed. The ordinance model used in Allen, Texas requires complete developer construction of key trail segments that fall within their property limits, without city participation, that will provide connections to the overall trails network. In some cases, the required trails may replace adjacent sidewalks; and therefore, do not add significantly to the cost of the development.

Trail-Oriented Development

is a new tool that aims to coordinate the active transportation benefits of a trail with a local network of businesses and housing, similar to how Transit-Oriented Development aims to build nodes of where people can live-work-play.



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Credits for landscaping, pavement, or other infrastructure elements can be given in return for trail construction. A central point to consider is that most developments will add trails automatically; therefore, such a mandatory trail development ordinance only serves to create a level playing field between the many developments that include trails and those that will build them only if required to do so.

Develop Trail Cost Sharing Ordinance - An alternative type of ordinance is patterned after sidewalk requirements, in which adjacent property owners fund a portion of the trail installation cost, and the City of Austin covers the remainder of the cost.

New Development Reservations and Dedications - The preservation of trail corridors in conjunction with or independent of the open space areas required to be created with new residential and commercial development could be required in the City Code. Right of way reservations or dedicated easements for pedestrian connections, bikeways, and multiple use trails could be required of new residential and commercial developments consistent with the engineering standards and/or this Urban Trails Master Plan. An offer of dedication is required when a reasonable relationship is demonstrated between the need for the dedication and the characteristics and impacts of the proposed development.

The City Code could also provide incentives to new developments to encourage connections to the Urban Trails network. For example, when a new development is on a property with a Tier I or II Trail and they are making an easement, a recreational easement should also be identified at this stage. Reduction in required open space areas and fee waivers are two specific incentives for public trail reservations and dedications beyond that required of any new development. Additional flexibility could be provided for new development, promoting the highest quality development in concert with the public need and benefit derived from creative and innovative development proposals. This flexibility might come by allowing reductions in required off-street parking and flexibility in internal project circulation layout, which is justified with the reservation/dedication of lands in support of the planned Urban Trails network.

Existing Development - In cases where trail corridors shown in the Urban Trails Master Plan intersect with existing developed areas, the acquisition of lands or dedicated easements will be necessary to create connectivity with adjoining trail corridors. Acquisition can be accomplished through a variety of forms such as outright purchase of property, purchase of easements, or donations. These varieties of acquisition may be employed, while always seeking the fair market



The Ghisallo Foundation provided a bike rodeo at an Urban Trails Master Plan public meeting in February 2014. Volunteers teach kids the basics of riding a bicycle and bicycle repair.

value as determined by a real estate professional so as to secure appropriate public interest. Public/private negotiations for fair market value purchase of private property may be necessary in some instances.

Adopt-a-Trail Programs

Teaming up with private and non-profit partners is a great way to involve the community and provide adequate maintenance for a trail. While the Public Works Department and the Parks and Recreation Department strive to maintain all their respective trails, community assistance can be an effective way for a beloved trail to remain in excellent condition. The Austin Parks Foundation has experienced a successful partnership with the City of Austin's Adopt-a-Park Program. Keep Austin Beautiful has partnered with the Watershed Protection Department to offer an Adopt-a-Creek program. The Friends of Barton Springs Pool helps improve and maintain the water quality of Austin's famous natural spring. Many organizations like the Ghisallo Foundation are already helping to maintain Austin's Urban Trail network. In 2012, the non-profit launched its first Clean Sweep event where community members picked up trash and swept away debris from the Lance Armstrong Bikeway. These kinds of partnerships provide an excellent service for the City and the community.

Outreach and Education Opportunities

The Urban Trails Program should team with local bicycle, pedestrian and environmental advocacy groups to help spread awareness of these alternative forms of transportation and appreciation of the outdoors. Encouraging people to walk or educating people about bicycle repair can help grow a culture of *not* driving. An important step to promoting Urban Trails in Austin is informing people of these options and allowing people to feel comfortable with these new options through education and allaying negative perceptions of walking or bicycling. Several organizations in Austin focus on bicycle advocacy, including Bike Austin, the Ghisallo Foundation, Bike Texas and Yellow Bike while organizations such as Walk Austin and the American Disabled for Attendant Programs Today (ADAPT) are dedicated to pedestrian advocacy. Environmental groups such as the Austin Heritage Tree Foundation, the Sierra Club, the Hill Country Conservancy, the S.O.S Alliance, and the Friends of Barton Springs help spread an appreciation of the outdoors through preservation and restoration. During the public outreach process and Boards and Commissions hearings several Austinites spoke in favor of building more Urban Trails because they connect them to the natural environment and enable them to appreciate the outdoors in an easy, convenient way. There was also an equally proactive representation from stakeholders for careful and considerate design of trails that would



Live Performance Measure

This bicycle counter in downtown San Francisco displays live bicycle counts for the adjacent cycle track as well as the annual number of bicyclists to-date. This live performance measure is a great way to engage the community and encourage more people to ride.



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protect and preserve the natural environment much as possible.

HOW A TRAIL BECOMES A TRAIL

Implementation of an Urban Trail is based on:

- ◆ Funding
- ◆ Environmental Constraints
- ◆ Stakeholder/resident input

Preliminary Engineering Report (PER)

Following the selection of the Urban Trail conceptual alignment, there is a data collection process including field surveys and feasibility of construction called a Preliminary Engineering Report (PER). Thorough environmental and cultural reviews will be executed and are required for all Federally funded projects and for locally funded projects as needed. Often, the City of Austin uses contractors or subcontractors to complete this work. This work is completed as part of the Preliminary Engineering Report. The PER process evaluates all the environmental constraints of the corridor including: topography, drainage, various soil types, tree canopy, wildlife habitat, floodplain, surrounding land uses, location of utilities, and property ownership, amongst other elements. If an environmental constraint is present the project staff will analyze different possibilities ranging from alternative routes to a no-build option. The entire length of the corridor will be reviewed by the Watershed Protection Department and Planning and Development Review to ensure the environmental constraints are accurately recorded before any design process begins.

PER and Public Input

The City of Austin will hold one Open House at the initiation of the PER, and another after the PER has almost been completed. In addition to these Open Houses, staff will collect feedback electronically, by mail, or by telephone. Additional Open Houses may occur as needed. During the PER process, the public will be invited to provide feedback about the proposed alignment(s), voice any concerns, and help identify any potential access points. Once the PER process is complete, a preferred alignment for the trail is developed based on the environmental constraints, including the presence of critical environmental features or endangered species, and public input.

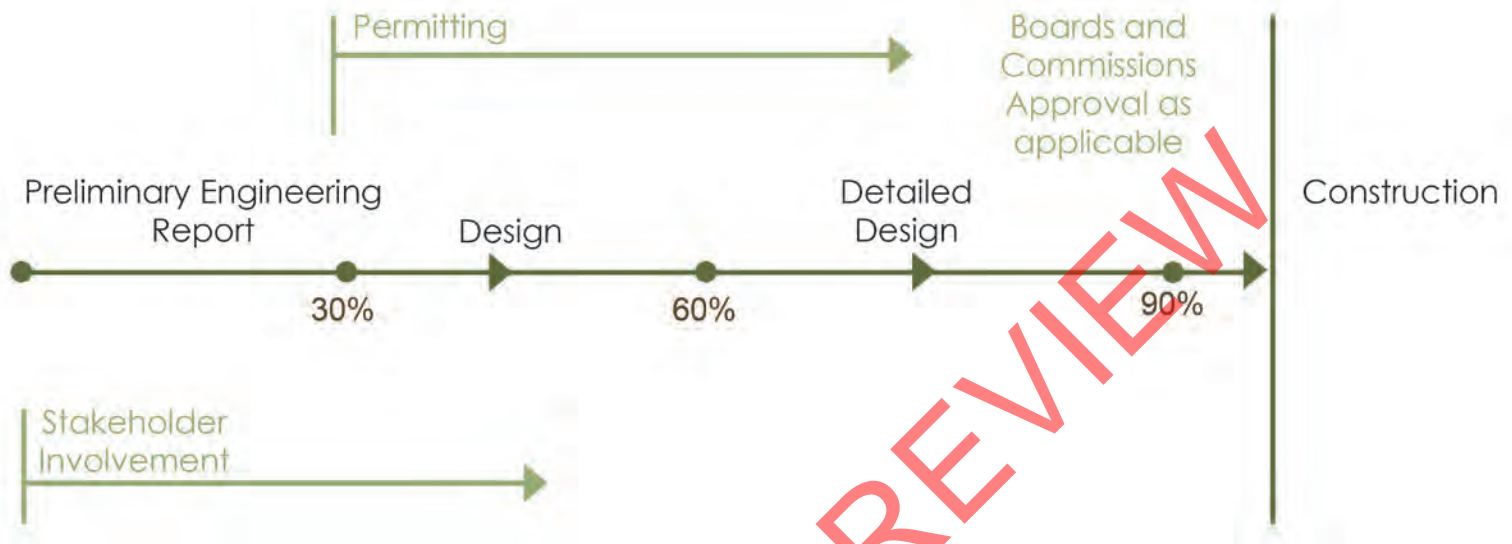
Design and Review

Design of Urban Trails (UTs) will be reviewed and approved by the Planning and Development Review, Watershed Protection, Public



Construction on the Boardwalk Trail at Lady Bird Lake in March 2013.

Urban Trail Implementation Plan Diagram



Works, Parks and Recreation and other departments as necessary. The UTMP recognizes the need to provide superior protection of our water resources. To that end, if an Urban Trail must enter the inner half of a Critical Water Quality Zone, all appropriate City of Austin Boards and Commissions will be briefed prior to finalizing the design of such a trail. Trails within the Erosion Hazard Zone require inclusion of protective works. Removal of Heritage Trees and protected trees require approval by the Planning and Development Review and Land Use Commission. If an Urban Trail Design cannot meet the minimum requirements, the project will be reviewed by the Environmental Board.

Construction

The trail then goes into the process of design and developing construction documents. From there, it then proceeds to the bidding stage for construction, and once a contractor is selected, construction of the trail begins. Qualified construction inspectors are required for all construction projects.

The City reserves the right to not build Urban Trails if there are unavoidable environmental constraints and/or the existence of a better, alternative route. Due to the high cost of design, construction, and maintenance of Urban Trails, the City of Austin will prioritize those Urban Trails that have existing community support, are cost effective, and serve the most potential users. Finally, the City will continue to add to the annually updated Capital Improvement Project (CIP) list of short- and long-term Urban Trail improvements based on this plan. This CIP list will reflect the highest priority projects for each fiscal year into



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the future.

Table 5.2 illustrates how some environmental procedures behind the Urban Trail planning and design process.

Environmental Issue	Permission Process	LDC Reference
Critical Environmental Feature	<p>As long as the trail is 50-ft away from edge of CEFs, then variance to reduce the buffer to 50-ft would be administrative. If the findings of fact for administrative variance are met, then staff would grant the variance. The findings of fact are the following two questions.</p> <ol style="list-style-type: none">1. For a property in the Barton Springs Zone, the granting of the variance will result in water quality that is at least equal to the water quality achievable without the variance.2. For variance(s) from Section 25-8-281, which are indicated above, the proposed protective measures proposed with the variance will preserve all characteristics of the critical environmental feature at least equal to the water quality and quantity and achievable without the variance. <p>If the administrative variance is not provided, a commission variance may be sought.</p>	25-8-281
Critical Water Quality Zone	<p>Administrative Variances are allowed for (does not apply to Save our Springs Initiative nor within 500 feet of the shoreline of Lake Austin):</p> <ul style="list-style-type: none">•Hard surfaced trails located closer to the creek than allowed under 25-8-261 <p>If the administrative variance is not provided, a commission variance may be sought</p>	25-8-42
Critical Water Quality Zone	<p>In all watersheds, development is prohibited in a critical water quality zone except as provided in this Division. Development allowed in the critical water quality zone under this Division shall be re-vegetated and restored within the limits of construction as prescribed by the Environmental Criteria Manual.</p> <p>(3) A hard surfaced trail that does not cross the critical water quality zone may be located within the critical water quality zone only if:</p> <ol style="list-style-type: none">(a) designed in accordance with the Environmental Criteria Manual;(b) located outside the erosion hazard zone unless protective works are provided as prescribed in the Drainage Criteria Manual;(c) limited to 12 feet in width unless a wider trail is designated in the Urban Trails Master Plan adopted by Council;(d) located not less than 25 feet from the centerline of a waterway if within an urban watershed and not crossing the Critical Water Quality Zone; and(e) located not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, and 150 feet from the centerline of a major waterway if within a watershed other than an urban watershed and not crossing the Critical Water Quality Zone.	25-8-261

Cut/fill greater than 4' or 8' (depending on watershed)	<p>Cut and fill may not exceed 4 feet in depth except for in urban watersheds</p> <p>An administrative variance may be granted for cut and fill up to 8 feet in depth in suburban watersheds. To qualify for the administrative variance, the cut or fill shall not be located on a slope with a gradient of more than 15 percent or within 100 feet of a classified waterway</p>	25-8-341, 25-8-342, 25-8-42
Erosion Hazard Zone	<p>An Erosion Hazard Zone analysis is required for development within 100 feet of the centerline of a waterway with a drainage area of 64 acres or greater</p> <p>Development must be located outside of the Erosion Hazard Zone, unless protective works are provided as prescribed in the DCM</p>	25-7-32, 25-7-61

TRAIL MAINTENANCE

The Public Works Department (PWD) will be responsible for maintaining the surface, bridges, shoulders, and trees along all Urban Trails. The PWD is working internally with the Parks Department and the Watershed Protection Department to develop a city-wide agreement that will address all future Urban Trails. Currently, these maintenance agreements occur on a project-by-project basis. Citizens and users should be notified that if maintenance is needed, the Austin 3-1-1 System will take requests for maintenance. Such requests will be considered within 10 working days.

Safety and Security

The Urban Trails Program is working closely with the Parks and Recreation Department as well as Emergency Services to geocode all trails and create a system that will be uploaded to the City's 9-1-1 System. Ideally, this will include appropriate signage and emergency information for all users of the Trails.

For more information on Urban Trail maintenance and security please see *Appendix A Urban Trail Maintenance*.

CONCLUSION

The Austin Urban Trails Master Plan is a living document and should be updated ideally every five years to assess progress, identify new opportunities, and re-evaluate goals and priorities. The citizens of Austin have expressed interest and support for an accelerated



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implementation of the priority actions of this plan. Honoring this interest, an annual review of implementation successes over the preceding year will be conducted as part of the Public Works Department performance measures report. This may include number of miles of Urban Trails built, total costs associated with the development, sources of financing, number of trail or on-street connections made, and ridership counts. In addition, an action plan for the following year should also be developed and proposed for inclusion in the annual Capital Improvements Program (CIP).

Urban Trails are a necessary component to an efficient transportation system. Having a connected network of well designed Urban Trails will enable access to these modes of transportation by allowing more choices in how citizens of Austin get around the City.

The Urban Trails Master Plan guides City leaders and staff to develop and enhance safe and adequate infrastructure for walking and bicycling in Austin. The plan was developed through extensive engagement with the citizens of Austin, key stakeholders, and City staff from various departments; and that input helps make it a feasible and achievable plan for bicycling and walking.

This plan recognizes the demand for providing alternative transportation modes, and that the best cities must offer their residents a variety of choices as to how to get around. Interest in walking and bicycling, both for fun and to get to key destinations, is growing. This plan will further contribute to Austin being a premier city in which to ride a bicycle, walk and live.

APPENDIX A: TRAILS CRITERIA GUIDELINES

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AUSTIN URBAN TRAILS MASTER PLAN

APPENDIX A

TRAILS CRITERIA GUIDELINES



Lance Armstrong Bikeway

The intent of the Urban Trail Program is to work with internal and external stakeholders to draft a Trail Criteria Manual that will go through the City of Austin Rule Posting Process (Chapter 1-2 of the City Code). The TCM is expected to be complete one year after adoption of the Urban Trails Master Plan. About six months will be spent creating the draft manual and it typically takes six months for the rules posting process. Amongst other trail design criteria it will detail: drainage criteria to address erosion and steep slopes, preservation and protection of trees and vegetation, appropriate trail distance from creeks, trail construction footprints, and maintenance.

The Trails Criteria Guidelines describes the standards of the Urban Trails Master Plan and serves as a platform for the development of a Trail Criteria Manual. This chapter is divided into 11 sections: Urban Trails in Austin, Elements of Urban Trail Design, Designing with Nature, Bridges and Underpasses, Lighting, Trailheads and Access Points, Features and Amenities, Signage and Wayfinding, Creating Whimsy, Urban Trail Maintenance, and Safety and Security on Trails.

Primary national resources for trail standards and design guidelines include The American Association of State Highway and Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO), the Federal Highway Administration (FHWA), the Institute of Transportation Engineers (ITE) and City of Austin adopted ordinances and policies. This plan considers recommendations set forth by these entities and supports the use of these resources for trail standards and design guidelines.

The Urban Trails Master Plan utilizes these resources:

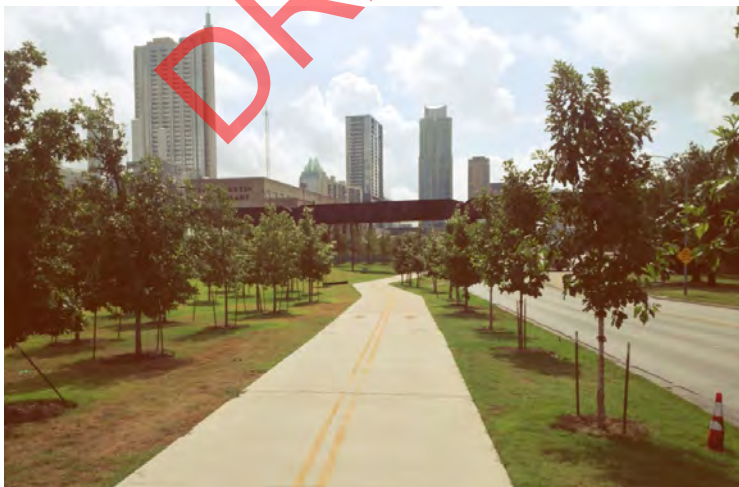
- ◆ AASHTO *Guide for the Development of Bicycle Facilities*, 2012
- ◆ NACTO *Urban Bikeway Design Guide*, 2011 and *Urban Street Design Guide*, 2013
- ◆ ITE *Designing Urban Walkable Thoroughfares*, 2010
- ◆ TMUTCD (Texas Manual on Uniform Traffic Control Devices)
- ◆ FHWA Memorandum on Guidance: *Bicycle and Pedestrian Facility Design Flexibility*, 2013
- ◆ ADAAG (Americans with Disabilities Act Accessibility Guidelines)
- ◆ TTI (Texas Transportation Institute)

- ◆ TxDOT (Texas Department of Transportation)
- ◆ U.S. Department of Transportation
- ◆ TAS (Texas Accessibility Standards)
- ◆ City of Austin Transportation Criteria Manual
- ◆ City of Austin Environmental Criteria Manual
- ◆ City of Austin Land Development Code
- ◆ City of Austin Watershed Protection Ordinance
- ◆ City of Austin Protected and Heritage Tree Ordinance
- ◆ The United States Access Board: *Final Guidelines for Outdoor Developed Areas*

To guide the future development of Urban Trails in Austin, a range of design standards should be developed to accommodate different conditions and needs. Creating a range of design standards takes into account the many constraints and particularities of varying trail settings. This flexible approach to trail design aims to maintain superior standards by taking a context-sensitive approach to design.

URBAN TRAILS IN AUSTIN

The Austin Urban Trail design aims to provide a comfortable experience for walkers, joggers, wheel chair users, people with strollers, bicycle commuters on thin-tired road bicycles, mountain bikers and kids on razor scooters alike. The over arching design principles consider



**Looking East
from the Lance
Armstrong
Bikeway just
east of the
Pfluger Bridge
extension**



AUSTIN URBAN TRAILS MASTER PLAN

At the public meetings that took place in November 2013 – February 2014, Austinites expressed that widening trails is one of the most important actions for improving Urban Trails.

safety, accessibility, connectivity, environmental protection, and user experience. The Austin Urban Trail Master Plan will meet AASHTO standards for design elements including slope, grade, clearance and sight distance.

ELEMENTS OF URBAN TRAIL DESIGN

Standard Urban Trail Width

The width of a trail significantly impacts the accommodation capacity, safety, comfort and experience of an Urban Trail. Narrow trails may create dangerous situations when many different trail users traveling at various speeds try to use the same space and pass each other. There have been reported collisions between trail users in cities around the country because of narrower trail widths in high-use areas that have resulted in injury or even death. The Urban Trails Master Plan aims to provide a safe trail environment for all users and emphasizes the significance of trail width for user safety. Wider trails are necessary to safely accommodate a wide range of trail users. Urban Trails in Austin are recommended to be a 12' wide hard surface path to accommodate a variety of trail users simultaneously without conflict. This will allow a trail user, such as a runner or bicyclist, to pass another trail user while, simultaneously, a third trail user such as a walker is approaching from the opposite side. In areas where a higher amount of both pedestrians and bicyclists are anticipated, a dual track design with a width of up to 18' should be considered. While the recommended trail width is 12 feet, Urban Trails will be designed contextually and may be less than 12' where appropriate.

Dual Track Urban Trail

A dual track is a separated trail with designated pedestrian use on one side and bicyclists on the other side. This type of trail is appropriate where high volume of both pedestrians and wheeled users is expected. It can provide a safer accommodation of high-volume traffic by reducing user conflicts, allowing bicyclists to travel at higher speeds and allowing pedestrians to stop and enjoy many viewing points. Dual track trails can be particularly safe and convenient on trails where there are many scenic overviews, steep hills which cause bicyclists to pick up speed, turns which reduce sight lines, or along busy roadways in which noise pollution makes communication between users difficult. The trail sides should be well marked with bicycle and pedestrian symbols and there should be a physical separation between the two sides. This separation may be a painted or thermoplastic stripe and/or a buffer area, a concrete barrier, landscaping



Example of an ideal Dual Track Urban Trail

or a gradient difference.

Surface Material

The preferred surface material for an Urban Trail is asphalt. Asphalt provides an all-weather, smooth, hard surface that can accommodate a wide range of users from bicycle commuters on thin-tired road bicycles to a parent with a stroller. Asphalt affords many advantages as a trail surface material, notably lower initial costs than other hard surface materials. It is also the preferred hard surface material by runners because it is softer than concrete. Finally, asphalt trails may include a concrete ribbon on each side to extend the length of the maintenance cycle and minimize erosion.

Another recommended surface for Urban Trails is concrete. Concrete makes a good Urban Trail material because, like asphalt, it offers an all-weather, smooth, hard surface. While it has higher initial costs, the longevity and durability of concrete make it very cost-efficient in the end. Reinforced concrete trails can last around 20 years with very little maintenance. In the case of the Boardwalk Trail at Lady Bird Lake, concrete was chosen because of its durability, long life span, ability to withstand the occasional flood and resistance to slipping.

Asphalt and concrete surface trails are recommended to accommodate a wide variety of recreational and transportation uses. The Urban Trails Master Plan does not recommend decomposed granite (DG) as an Urban Trail surface material. While DG offers a pleasant aesthetic appeal, it has many disadvantages. The material does not accommodate multi-use transportation/recreation; small-wheeled users like skateboarders or thin-tired bicyclists cannot easily or safely ride on this material. It also assumes excessively high maintenance costs, averaging about three times the cost of concrete trail maintenance. Though DG is a semi-pervious surface it does not offer significant advantages for drainage or water runoff. It also presents a serious problem for storm water infrastructure as the material gets washed away with rain, clogging storm water drains and requiring frequent maintenance. Until better management techniques or material composition for decomposed granite arise the Urban Trails Master Plan does not recommend DG as an Urban Trail surface material.

Other pervious trail materials such as porous asphalt or concrete are not currently recommended because of exceptionally high maintenance cost and upkeep. When the material and application become more feasible for the Public Works Department to maintain, it will then be considered as a potential trail surface material.

Asphalt

Advantages:

- All-weather, smooth, hard surface,
- Lower construction costs than concrete, and
- Softer surface than concrete, hence preferred by runners

Disadvantages:

- Less durable than concrete thus will incur higher maintenance costs,

Concrete

Advantages:

- All-weather, smooth, hard surface,
- Long life span, and
- Low maintenance makes it very cost-efficient

Disadvantages:

- High initial cost

Decomposed Granite

Advantages:

- Aesthetic appeal
- Preferred by some walkers/joggers

Disadvantages:

- Does not accommodate multi-use,
- High cost of maintenance, and
- Problem for storm water drainage



AUSTIN URBAN TRAILS MASTER PLAN

The American Association of State Highway and Transportation Officials (AASHTO) Guide as well as the City's Transportation Criteria Manual provides standards for design elements including shoulder width, clearance, cross slope, grade and stopping sight distance. These standards ensure trail safety and can provide an accessible, comfortable Urban Trail experience without user conflict.

- ◆ **Vertical clearance** - A vertical clear zone of ten feet (10') is preferred. In limited conditions, an absolute minimum distance of eight feet (8') may be considered for short distances, but should be clearly marked so it can be seen at night.
- ◆ **Curvature** - Curves in the Urban Trails should be gentle and should follow minimums established for the design speed. Guidance for the design of horizontal and vertical curves provided in the AASHTO Guidelines should be followed. These vary based on the design speed and gradient of the facility.
- ◆ **Corridor width** - The overall corridor width should be at least 20' wide to allow for a minimum of 5' of clearance between adjacent features and either side of the Urban Trail. The edge of the urban trail should be at least 2' away from adjacent trees or landscaping.

Table A.1 Summary of Urban Trail Design Considerations

	Austin Urban Trail	Dual Track Urban Trail
Standard Width	12'	10' for bicyclist side 5' for pedestrian side
Surface	Asphalt	Asphalt
Standard shoulder	2'	2' recommended user separation
Vertical Clearance	10'	10'
Maximum Cross Slope	2%	8% for bicyclist side
Maximum Grade	5%	5%
Design Speed	18mph	3mph - 30mph
Minimum Distance from Roadway	5'	5'

◆ Pavement type and thickness

- Urban Trail design should conform to established design standards, including the City of Austin Transportation Criteria Manual, and consider soil type and usage characteristics. The National Cooperative Soil Survey provides soil data on nearly all of the counties in the nation. In areas where uplifting by tree roots is anticipated, a thicker pavement depth of 6" or greater, sand bridging, root barriers or additional steel reinforcing are recommended to increase the durability of the Urban Trail. Where maintenance vehicles are anticipated to drive on the Urban Trail, thicker pavement and/or deeper edge footings should be considered.

- ◆ **Fencing/Railing** – AASHTO recommends a railing height on stand-alone structures between 42" and 48". In cases where the bridge crosses a roadway, a high protective fence of 72" - 96" may be considered, according to the Rails to Trails Conservancy bridge design standards.
- ◆ **Retaining walls** – These may be necessary for trails with steep slopes and may consist of stone, concrete or masonry.
- ◆ **Obstructions** – These may include bollards placed at the entrance of a trail. The purpose of obstructions is to enhance the safety and integrity of the trail by keeping motorized vehicles off the trails. Bollards may also serve as an effective wayfinding tactic, as described later in Signage and Wayfinding.
- ◆ **Pavement Markings** – These will enhance safety and provide an effective method of communication to trail users. They can communicate two-way trail traffic with a dashed yellow centerline, direction of traffic with arrows, and pedestrian and bicyclist trail sides with respective symbol markings.

Typical Trail Type Cost Estimates

Trail costs vary considerably based on a wide range of construction needs, including the type of material used for the trail, the number of bridges or drainage crossings that are required, the need for retaining walls or other protective works and the type of amenities that are included in each trail segment.

DESIGNING TRAILS WITH NATURE

One of the goals of the Urban Trails Master Plan is to ensure environmental sustainability. The plan will comply with the new Watershed Protection Ordinance, the Heritage Tree and Protected Tree Ordinances, the Environmental Criteria Manual, and the Sustainable Plan Award-winning *Imagine Austin*. Vegetation and tree plantings should follow the Environmental Criteria Manual recommendations for local and low-maintenance species listings. Tree preservation and plantings are important to trails because they provide shade and respite from the sun. One of the biggest deterrents of trail use in Austin is the hot weather, so shade offers a huge benefit. Urban Trails can also improve conditions for trees through design by nature techniques. This can

Note on Environmental and Public Health

Due to the environmental and public health risks the City of Austin's City Council voted unanimously in 2007 to ban the sale and use of coal tar containing pavement sealants in the city and its ETJ. Coal-tar sealcoat is a product commonly used on asphalt pavement to protect and beautify the surface. It is widely recognized as potent source of polycyclic hydrocarbons (PAHs) and a carcinogen. New studies reveal that living adjacent to a coal-tar sealed pavement is associated with significant increases in cancer risk and that children are particularly vulnerable.¹

1. USGS. 2013. "You're Standing on It! Health Risks of Coal-Tar Pavement Sealcoat." http://www.usgs.gov/blogs/features/usgs_top_story/youre-standing-on-it-health-risks-of-coal-tar-pavement-sealcoat/



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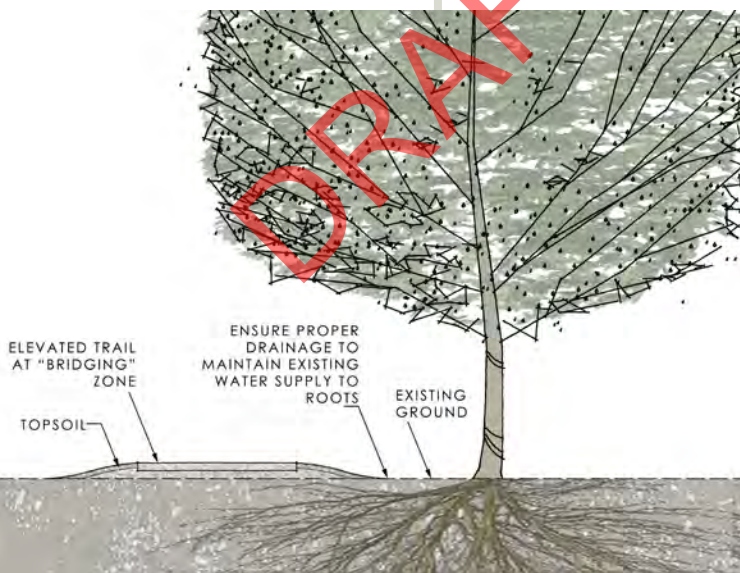
"Our urban forest encompasses the trees and vegetation, publicly and privately owned, within Austin's urban area. We receive an estimated \$10.7 million in social, economic and environmental benefits each year. To get the benefits that trees bring to our city, they need to remain healthy and properly maintained, to provide us with all of these benefits year after year."

- Austin Urban Forestry Newsletter

include manipulating drainage to lead to a tree-covered area and maintaining natural drainage for trees. Additionally, during Urban Trail construction, appropriate care will be taken to protect and water existing trees located up to 15' from the trail centerline.

Some Urban Trails may have more scenic qualities, and as such may vary in their design to acknowledge those qualities. The development of all trails in greenbelts will have to be coordinated with the Watershed Protection Department and the Parks and Recreation Departments and adhere to their policies. For Urban Trails that will be located in environmentally sensitive areas, several measures are recommended to minimize the impact of the trail and trail users on the area:

- ◆ The riparian setback should be as wide as possible: 30' to 50' is recommended,
- ◆ Slope the trail away from the waterway
- ◆ Include appropriate green infrastructure such as rain gardens, vegetated filter strips, and directed sheet flows to manage stormwater and contribute to sustainable vegetation management
- ◆ Maintain natural drainage
- ◆ Limit vegetation removal and preserve/ plant additional trees or vegetation as close to the trail as possible,
- ◆ Support the retention of existing trees over removal and mitigation practices,
- ◆ Incorporate smaller curve radii to preserve the scenic qualities of the corridor,
- ◆ Locate the trail outside the 100-year floodplain wherever possible,
- ◆ Use the trail as an opportunity to restore and enhance the waterway or environmentally sensitive area.



Sand Bridging Rendering

Sand Bridging

This is a relatively new technique that the City utilizes which helps preserve existing trees along a trail. The sand bridging technique lowers impacts to root zones, eliminating the need for removal and mitigation and thus preserving trees as close

as possible to the alignment of the trail. Instead of excavating the ground for trail construction, sand is used to build up the site and the trail is then placed on top, and hand digging is done when necessary. By utilizing this technique, no compaction takes place in areas within the critical root zone. The schematic diagram shown on the previous page illustrates a detail of sand bridging that was recently done for the Shoal Creek Restoration project.

PEDESTRIAN BRIDGES AND UNDERPASSES

Pedestrian bridges and underpasses provide access across barriers that would otherwise hinder connectivity of a trail system.

From a user's perspective, bridges should be at least one to two feet wider than the trail on each side. This allows pedestrians to stop and view the adjacent scenery without obstructing the trail. Any bridge that is specifically designated for bicycle traffic must have appropriate railing for bicyclists. When designing a trail across a high bridge, such as a bridge that goes over a body of water or major roadway, railings should be tall enough to prevent a bicyclist from falling over the side in case of a collision. The design should also consider sight lines of pedestrians and bicyclists. AASHTO recommends a railing height of 42" - 48" depending on the site location. Bridge approaches and span should not exceed 5% slope for ADA access.

Bridges should accommodate maintenance vehicles if necessary. Bridge structures should be out of the 100-year floodplain. Footings should be located on the outside of the stream channel at the top of the stream bank. The bridge should not constrict the floodway. All bridges and footings in the stream corridor will need to be designed by a registered geotechnical or structural engineer. Cost, design and environmental compatibility will dictate which structure is best for the trail corridor. If the bridge cannot be located outside of the 100 year floodplain because of land constrictions, a low water crossing can be considered as an alternative.

Underpasses provide a more direct route to go under a busy street or railroad crossing. Underpasses should be well lit and attractive, and most of all provide a sense of security for the user. A clearance of 10' is preferred, with 8' as a minimum.

Table A.3 General Bridge Standards

Width	14' minimum
Vertical Clearance	10' minimum
Railing	42" - 48" minimum



Underpass along the Southern Walnut Creek Trail



AUSTIN URBAN TRAILS MASTER PLAN

Benefits of lighting:

- Nighttime visibility
- Extends hours of Urban Trail use
- Sense of security
- Orientation
- Creates beautiful public space

LIGHTING

As the Urban Trail network in Austin expands and aims to serve transportation needs as well as recreational purposes, lighting should be considered along certain trails and urban segments where not already provided. Installing lighting along certain trails allows users to access them safely and conveniently by enhancing nighttime visibility, orientation and a sense of security. Lighting will promote evening use, permitting the flexibility necessary to accommodate a wide variety of users.

The type of lighting installed along trails should consider the scale of its users, as well as the urban and natural surroundings. Appropriate lighting techniques for pedestrians and bicyclists includes lower-level human-scale lighting at a lower height, as opposed to higher and brighter roadway luminaires which are effective for automobile traffic but create shadows that make it difficult for pedestrians and bicyclists to see well.

Successful lighting techniques can provide more than just better nighttime visibility and a sense of security, they can help create a sense of place as well. Low-level, landscape lighting can create beautiful, engaging public spaces and help make the Urban Trails a destination themselves. Examples include the provision of lights in bollards, along fences or railings, and along the trail surface. This style of lighting should be considered at trailheads and along high use trail segments or intersections where feasible.

AASHTO provides guidelines for lighting at the pedestrian scale. Average horizontal illumination levels should be 0.5 to 2-foot candles (5 to 22 lux) and placement of luminaires should be able to accommodate this standard. This standard may be different dependent on levels of evening trail use and should be considered contextually, on a trail-by-trail basis. The height of luminaires can range from ground level landscape lighting to light posts no taller than 15 feet. All lighting must comply with the International Dark Sky Ordinance (as outlined in § 25-10-152 of the City of Austin Code.)

Trail lighting is recommended at the following locations:

- ◆ Under vehicular bridges, underpasses, tunnels or locations with limited visibility,
- ◆ Along bridges used by bicycles and pedestrians,
- ◆ Along urban routes or trail segments where frequent evening or nighttime use is anticipated,
- ◆ On routes that are within 1/4 mile from Metro rail transit stations,
- ◆ Along high use portions of trails that lead to areas with frequent

The CAG recommended artificial nighttime lighting should be turned off after 10:00 PM along riparian corridors and other less/underdeveloped areas. Any essential lights for safety that are left on all night should be red wavelength and shielded to minimize disturbance.

evening events (example – Butler Trail segments near Auditorium Shores),

- ◆ On routes that are within areas having a residential density greater than 10,000 residents per square mile (e.g. Downtown Austin),
- ◆ At trail intersections with roadways or driveways where crossing is required, and
- ◆ At major trail entrances.

Other factors to consider when planning lighting elements for an Urban Trail include:

- ◆ Limit lighting in natural and undeveloped areas to mitigate environmental disturbance,
- ◆ Consider timed lighting for commuting (e.g. evening and early dawn),
- ◆ Acknowledge that lighting invites nighttime and evening use (but embrace this use), and
- ◆ Include signage or information for trail users to call 311 in case a light is out or damaged
- ◆ Artificial nighttime lighting should be turned off after curfew along riparian corridors and other less/undeveloped areas. Any essential lights for safety that are left on all night should be Dark Sky compliant.

It would be impossible and superfluous to provide lighting for the entirety of the Urban Trails network. Certain trails may be very popular day attractions but not necessarily used at night. Other routes may be used around the clock as a safe, pleasant way for non-motorized users to get around the City. These routes can be identified using travel data, popular evening destinations, residential density, and local knowledge. Some routes traverse environmentally sensitive areas like creeks and should avoid night lighting in order to not disturb wildlife. During the Urban Trail stakeholder sessions, the CAG suggested using shielded, red wavelength nighttime lighting to mitigate wildlife disturbance. All night lighting should meet International Dark Sky standards. This plan supports these suggestions.

Lighting Maintenance:

Advances in technology have made lighting very affordable. However, maintaining the trails will only become more taxing as the network expands. Street lighting or other sources may provide adequate lighting. This should be taken into account when lighting a trail segment is considered. It is important for the City and trail users to

Over 85% of participants of the Online Your Path survey responded that they use the trails in the evening.

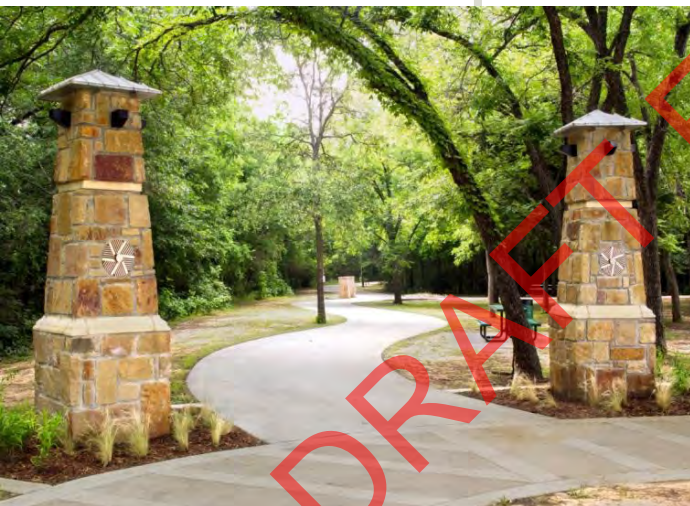
Participants of the intercept survey marked “add lighting for evening use along some sections of the trail” as the second most important potential improvement that could be made to the trails in Austin.



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have a clear understanding of who to contact when a light is out or damaged. Trail users should be encouraged to use the 311 system to alert the City about maintenance issues, and the 311 Ambassadors should be trained to take trail related calls to ensure the proper responsiveness. Furthermore, 311 information should be included along the trail whether it is communicated on light poles, stand alone signage or kiosks located at trailheads.

Trail Curfew - An important consideration that may impact lighting Urban Trails is the operating hours imposed by the City. As of May 3, 2014 a new trail curfew of 12 midnight to 5:00 AM has been approved for Johnson Creek Trail, Shoal Creek Trail from 15th Street to Cesar Chavez Street, and the Ann and Roy Butler Trail from the Boardwalk trailhead on International shores to the Pflugger Bridge. However, other Austin parks are typically open from 5:00 AM to 10:00 PM. It is important to monitor what type of curfew is appropriate on certain Urban Trails. For example, the San Antonio Greenway Trails have hours of “sunrise to sunset.” In that case, the curfew can be a serious hindrance to a commuter who begins his trip at 6:00 AM before the sun rises, or during the winter months when the sun sets at 5:30 PM. For the Urban Trail network in Austin to be a useful component of the Active Transportation Network, it is important to have flexible hours of operation. The Public Works Department is currently coordinating with Austin Police Department, Transportation Department, Watershed Protection Department, and Parks & Recreation Department on curfew issues.



Example of a trailhead

TRAILHEADS AND ACCESS POINTS

It is important that Urban Trails possess a high level of accessibility. Since they are designed with a wide range of users in mind, from recreational to work commuters, a high number of access points is desired to accommodate diverse trail use. This way Austinites can use the trails for long bicycle rides, taking their dog out in the morning or running errands.

More access points and intersections increase a sense of security by allowing more people to cross paths and providing more “eyes on the trail.” Access points should be no more than a 1/4 mile to a 1/2 mile apart, and placement of access points should take into consideration the nearby on-street transportation network, transit stops, bike share stations and points of interest. Access points should provide adequate signage and wayfinding regarding the 3 D's: direction, distance and

destination.

Major trailheads can be spaced 1/2 mile or farther apart. Placement should consider on-street transportation systems like bike lanes, transit stops and bike share stations. Trailhead design should include maps and signage that are informative while being visually easy to understand.

Two general types of trailheads include:

- ◆ Access to trail from adjacent streets or trails, and
- ◆ Access to trail from parks.

Trailhead features may include:

- ◆ Trash receptacles and dog-waste pick-up stations,
- ◆ Benches or other trail furniture,
- ◆ Bicycle parking,
- ◆ Information kiosk, where appropriate
- ◆ Trail map including a "You are here" orientation, and
- ◆ Landscaping.

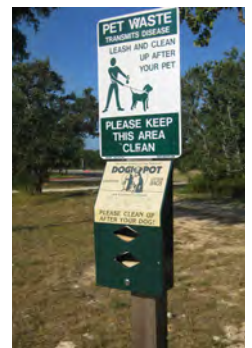
Connecting to the City's utility lines may be difficult in some cases. Therefore, recommendations from this plan for prioritized locations of lighting for trails should be considered during the design and construction of trails. Alternative designs for toilets, like composting toilets or portable toilets, should be considered when necessary.

FEATURES AND AMENITIES

In order for the trails system to be a successful community amenity, the trails should appeal to a wide variety of users including both the elderly and young children. These groups will use the trail more often if the trails are designed to provide a high level of user convenience and the appropriate amenities are provided. Recommended trail amenities include:

Signs can inform trail users of:

- Location
- Orientation
- Distance and travel time
- Speed
- Safety and alerts
- Trail etiquette



Trail amenities like drinking fountains serve basic needs. Others, like the bench pictured in the top right or the low-level pedestrian lighting pictured in the bottom left, can be functional and create a unique place.



AUSTIN URBAN TRAILS MASTER PLAN



Drinking Fountains provide drinking water for people (and pets in some cases).

Bicycle Parking Racks allow trail users to safely park their bicycles if they wish to stop along the way, particularly at parks and other desirable destinations.

Art Installations make a trail system uniquely distinct. Many trail art installations are functional as well as aesthetic, as they may provide shade, and places to sit or play. Austin's Art in Public Places Program teams with artists on CIP-funded trail projects. This collaboration is further described in the "Creating Whimsy" section later in this chapter.

Restrooms shall be ADA accessible and are appropriate at major trailheads or if previously existing in City parks along the trail route.

Pedestrian-scale Lighting improves safety by enhancing night-time visibility and the perception of security. Light fixtures should be designed at the pedestrian or bicyclist scale. High-use trails will be given priority lighting. Solar-powered lighting should be considered where feasible.

Trail Furniture such as benches at key rest areas and viewpoints encourages people of all ages to use the trail by ensuring that they have a place to rest along the way. Benches can be simple (e.g. wood slats) or more ornate (e.g. stone, wrought iron, or concrete).

Maps and Directional Signage allow users to navigate the trail system. Information kiosks with maps at trailheads and wayfinding signs throughout can provide enough information for someone to use the trail system with little introduction. A central information installation at trailheads and major crossroads also helps users find their way and acknowledges the rules of the trail. The directional signage should be ADA accessible and may include features for those with limited sight or other visual impairments, identify accessible routes, and impart a unique theme so trail users know which trail they are following and where it goes.

Reference Location Markers or mile markers are an effective way for trail users to track their location, and they enhance safety in the event of an emergency. They should communicate the trail name and reference location in miles. They may also include a unique identification number that can be relayed to emergency services personnel.

Walk Raleigh

A remarkable example of citizen activism, Walk Raleigh began in 2012 and aimed to communicate alternative transportation choices for people in the central Raleigh area. The goal of the project was to encourage people to walk when they would have otherwise driven by disclosing the short amount of time it would take to walk to various popular destinations. This project effectively used wayfinding to alter people's transportation behavior and their perception of distance. Walk Raleigh has since evolved into Walk [Your City], an online platform encouraging smart and accessible bicycle and pedestrian wayfinding. A Walk Austin group was created in 2013.

Information Kiosks provide trail users with information and the rules of the trail. A legible trail system map with a “You are here” marker is helpful for orientation. Involving school children, university students, civic organizations or the Art in Public Places program in the research, design and construction of these kiosks would be an excellent community activity. They are also useful for interpretive education about plant and animal life, ecosystems, and local history.

Trash Receptacles and Dog Waste Pick-up Stations are important trail features that can help keep the trails maintained. Periodic containers at access points should be provided. Additionally, dog waste pick-up bag dispensers should be placed at trailheads and key neighborhood access points along the route. Signs should be placed along the trail notifying dog owners to pick up after their dogs.

Shade Pavilions are important to give trail users a respite from the hot Texas sun. Shade pavilions should include some furniture for trail users to rest and relax.

Landscaping should consider practical and aesthetic appeal, including trees for shade and native, low-maintenance plants. The City of Austin Watershed Protection Department and the Environmental Criteria Manual provide guidance on responsible landscaping techniques for our climate. Urban Trails under design will be reviewed by Watershed Protection and Planning Departments to ensure landscaping for the trails meets current city standards.

Bike Share is a program where users can rent a bicycle at one location, ride to their destination, and return the bicycle at another location nearby. Placing bike share stations at key urban trail access points and trailheads is recommended. This would allow someone to enjoy an urban trail on a bicycle, or to commute on the urban trails by bicycle even if they do not own one.

SIGNAGE AND WAYFINDING

Signage and wayfinding represents an important element of a successful trails network. An effective system will promote safety, convey useful information, clarify perceptions of distance, provide a sense of familiarity, offer assurance for first-time users and attract new trail users.

Signs can inform trail users of their location relative to the trail network and the city around them. Orientation signs

What is wayfinding?

The term wayfinding was introduced in one of the most influential urban planning and design books called *The Image of the City* (1960) by Kevin Lynch. Lynch investigated the concept of memory and experience in urban environments, noting how people use landmarks to orient themselves in space and identify locations. He described wayfinding as “a consistent use and organization of definite sensory cues from the external environment.”



The green tipped bollards in Copenhagen provide great cohesion and recognizability that there is a trail crossing. These bollards are at every trail-street intersection and provide an excellent alternative to standard signage.



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Examples of wayfinding and signage along various trails around the State.

guide trail users in the right direction. Providing information on the distance and travel time to other trails or nearby destinations creates a pleasant, fluid experience for new and seasoned trail users. Trails that have speed limits should have signs notifying users of the speed limit, and should encourage safe and respectful interactions between users on the trail. The AASHTO guide recommends a general design speed of 18mph. Safety and alert signs can include precautionary messages about steep terrain, sharp turns or narrowing of the trail. Trail etiquette signage may remind users the trail is multi-use with pedestrian and bicycle icons. They may also convey “keep right pass left” etiquette and other appropriate behavior depending on the location.

Many organizations and governmental entities, including AASHTO and TxDOT, provide basic guidelines for signage and wayfinding. The Texas Manual on Uniform Traffic Control Devices (TMUTCD) discusses shared-use signage standards in Chapter 9B-1 including sign size, mounting height and placement in relation to the trail. Yet beyond the rudimentary structural elements of regulatory, warning and directional signage are techniques that can have a significant impact on trail user experience.

The current Urban Trails network in Austin lacks signage and wayfinding. A well-designed signage and wayfinding system can greatly impact user experience and attract new users. One of the goals of the Urban Trails Master Plan is to accommodate recreational needs as well as transportation needs. Many Austinites who do not currently use the trails for recreational purposes may be unaware of convenient trails nearby. During the public input process we learned that the majority of residents in Austin are interested in using an off-street path for recreation and transportation purposes, which points to a large potential for increased Urban Trail use in Austin. The signage and wayfinding system should extend beyond the trails to inform on-street users of nearby off-street options.

As the on- and off-street Active Transportation Network continues to grow, it is important that the systems complement each other. Adequate signage and wayfinding describing travel options should include a cohesive, easy-to-replicate design that is easily identified by Active Transportation Network users.

Wayfinding Within and Beyond

An effective wayfinding system will help guide Urban Trail users and attract passersby. Wayfinding along the trails should consider navigation within the Urban Trails Network as well as to and from destinations beyond the trail. Wayfinding signs should also alert on-street users of nearby urban trail facilities. This may increase urban trail

use by offering people in Austin an alternative way to get around the City. This will enhance the Urban Trails as a multi-purpose system, enabling Austinites to navigate through the trail network for miles and allowing others to use the trails as a way to get to their destinations.

Signage and Wayfinding Best Practices:

- ♦ **Uniformity of Design** - The Transportation Department, Public Works Department, Parks & Recreation Department, Art in Public Places program, Downtown Austin Wayfinding Project and non-governmental stakeholders should work together to create a streamlined design of wayfinding signs that Urban Trail users can easily identify, understand and navigate the network. Resources such as the Downtown Austin Wayfinding Master Plan and Graphics Manual should be utilized.
- ♦ **Legibility** - The shape and size of the sign, text and icons should be legible for trail users of all ages, locals and visitors, and should be easy to understand for English, visually impaired, and non-English speakers. For important messages conveyed by text consider including a Spanish translation.
- ♦ **Placement** - Signs should be placed at entrances, intersections and at forks in the trails to inform and guide urban trail users. Such signage aims to inform users of any and all directional options, nearby destinations and attractions. This includes assuring the user how to stay on the current path. AASHTO provides guidelines about placement distances for signage to avoid clutter.
- ♦ **Safety** - Reference location signs, or mile markers, represent an important safety measure for the Urban Trail system. They provide a simple, straightforward way of identifying location in case of an emergency. They also provide a measure of progress for users. It is important to communicate any unusual or upcoming trail circumstances like intersections with on-street traffic, sharp turns or trailheads.
- ♦ **Communication** - Convey the 3 D's: distance, direction and destination. Trail etiquette signage conveys appropriate speed and



Shoal Creek Trail - A scenic route that cuts through the central city, Shoal Creek has great signage and wayfinding opportunities. Intersections should provide adequate, legible signs to nearby destinations and places of interest.



A Little Free Library on a neighborhood street in Atlanta, GA.



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“keep right pass left” messages.

- ◆ **Advertise** - An effective wayfinding system will help guide trail users and attract passersby. In some ways it could be considered advertising. In order for more people to use the urban trails they need to know they exist, where they are located, and how to access them. Austin is known for being an outdoorsy, fit city, and it is likely that more people would be open to using the urban trails if they knew about nearby routes. Currently trail entrances are hidden or unmarked. Better wayfinding and signage will attract users and inform them of their off-street options.

CREATING WHIMSY

In recent years, ideas have changed about the role of public space. Discussions on how to enhance the public realm have spurred a movement involving a wide variety of interested parties trying to solve problematic urban situations. This fervor and reinvention of great public spaces was even showcased at the American Pavilion of the 2012 Architecture Biennale in Venice. The theme, Spontaneous Interventions, displayed 124 cases of public space being redesigned, ranging from Yarnbombing, in which signposts, bicycle racks and public benches all over the country were adorned with knitted covers, to Better Block, where a group of citizens took to the streets of their beloved neighborhood to paint bicycle lanes, crosswalks and install outdoor café seating.

Cities all over the world have taken part in these design actions and the leaders range from local governments to non-profit art collectives to groups of organized citizens. San Francisco and New York City have spearheaded the municipal initiatives with programs like the Parklet Program and the Plaza Program, wherein under utilized public space is transformed into vibrant, social public places.

Austin is no stranger to this movement, having participated in the 2012 Biennale, and bringing art non-profits, academics and City staff to the table to discuss public art as a way of revitalizing urban areas. The adoption of Austin's Great Streets Program uses the same approach to turn transportation corridors into enjoyable, engaging public spaces. One may think of streets as a way to get to a destination rather than as a destination itself, but with this new mentality of utilizing open space to engage the community, transportation corridors can become celebrated spaces.

The Urban Trail Network presents beautiful open space weaving in and around the City. Already an oasis of greenery and nature, the



A solar-powered light along the Lance Armstrong Bikeway installed by the AIPP program. This yellow, water-jet cut metal design can be found along the whole path, providing art and wayfinding.

trails system offers more than a way to get around the City by creating unique open spaces for passage, respite and social gathering. The City can collaborate with local non-profits, schools and universities, volunteer groups, neighborhood associations and businesses to enhance the space the trails inhabit and foster a social, vibrant, even whimsical environment.

Actions

In 1985 the City of Austin established the Art in Public Places (AIPP) program to include works of art in construction projects. The ordinance, which is included in Appendix D, mandates 2% of eligible Capital Improvement Project funds to be allocated to commission or purchase art for that site. AIPP teams with local and nationally-recognized artists to enhance the public realm with historical and cultural landmarks.

The Urban Trails program and the Art in Public Places program will collaborate during the stakeholder process to engage the community and understand the best type of art for each site. Art projects can provide functional amenities like benches or wayfinding. A great example is the AIPP project for the Lance Armstrong Bikeway which incorporates wayfinding along the path.

The Urban Trails program also encourages other opportunities to collaborate with area stakeholders to create fun, community-driven amenities installed along the Urban Trails. Many opportunities exist for collaboration, including the exhibition of student work from the University of Texas School of Architecture.

URBAN TRAIL MAINTENANCE

Effective trail maintenance is critical to the overall success and safety of Urban Trails in Austin. Maintenance activities typically include pavement stabilization, landscape maintenance, facility upkeep, sign replacement, mowing and litter removal. A successful maintenance program requires continuity. Routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trail. The benefits of regular trail maintenance include:

- ◆ Promotion of Austin's Urban Trail system,
- ◆ Deterrent to vandalism, litter and encroachments,
- ◆ Preservation of positive public relations between the adjacent land owners and managing agency,



Photo source: Nathaniel Schneider

University of Texas School of Architecture student work at Boggy Creek Park. Structure is located at 900 Nile St.



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- ◆ Efficient enforcement of regulations on the trail. Local clubs and interest groups will take pride in “their” trail and will be more apt to assist in helping with conservation of the trail, and
- ◆ Improved safety along the trail.

Ongoing maintenance activities typically include some, if not all, of the following activities:

- ◆ **Vegetation** - Plantings should follow local species lists provided by the Watershed Protection Department and the Environmental Criteria Manual. They should be placed far enough apart to maintain good visibility and give trail users good, clear views of their surroundings. Under-story vegetation within most trail rights-of-way should not be allowed to grow higher than 36” for visibility purposes, except in cases where the under-story vegetation is natural, desirable, and part of the habitat required for wildlife. Tree species selection shall consist of long lived native shade trees and native understories appropriate for the site.

Tree trimming along Urban Trails will only be conducted by certified arborists following the Environmental Criteria Manual (Oak Wilt City Policy) and will be done to meet existing City Code (§ 6-3-26). Watering will occur for trees that are critically impacted during the construction process and are within 15’ of the trail centerline. Other maintenance may include mulching dependent upon available budget of the managing department. Additionally, trails should be designed to allow for natural drainage and to even accommodate improved flows towards trees if deemed appropriate.

- ◆ **Mowing** - The shoulder zone adjacent to an Urban Trail should be mowed as minimally as possible and will be maintained for safety, security and comfort purposes.
- ◆ **Surfacing** - Where concrete is the recommended surface material, cracks, ruts, and water damage will need to be repaired periodically. Where drainage problems exist along the Urban Trail, rain gardens, vegetation filter strips, ditches and drainage structures will need to be kept clear of debris to prevent washouts and maintain positive drainage flow. Checks for erosion along the Urban Trail should be made during the wet season, and immediately after any storm that brings flooding to the local area.
- ◆ **Removal of Debris** - The Urban Trail surface should be kept free of debris, especially broken glass and other sharp objects, loose

gravel, leaves, and stray branches. Trail surfaces should be swept periodically. Soft shoulders should be well maintained to maximize their usability.

- ◆ **Litter Removal** - Litter receptacles should be placed at access points such as trailheads. Neighborhood volunteers, friends groups, and community service groups should be considered in addition to maintenance staff to help pick up litter. Illegal dumping should be controlled by vehicle barriers, regulatory signage, and fines as much as possible. When it does occur, it should be removed as soon as possible in order to prevent further dumping.
- ◆ **Sign Inspection and Replacement** - Signage should be replaced along Urban Trails on an as-needed basis.
- ◆ **Graffiti Abatement** - Graffiti abatement plans should be developed amidst trail design and graffiti removal should be a part of routine maintenance.

Clarifying Inter-Departmental Maintenance Duties

The Parks and Recreation Department (PARD) retains the approval authority on trails within parkland as well as corresponding maintenance responsibilities. PARD and the Public Works Department (PWD) have created written agreements regarding operation and maintenance responsibilities for specific trails to clarify duties and ensure adequate trail maintenance. The Boardwalk Trail at Lady Bird Lake Inter-Departmental Agreement, Austin to Manor Trail Memorandum of Understanding, and the Southern Walnut Creek Trail Memorandum of Understanding are included in Appendix D of the Urban Trails Master Plan as references for such agreements.

One of the goals of the Urban Trails Master Plan is to provide a general, streamlined agreement and understanding of Urban Trail maintenance duties. As different City entities must work together to maintain the safety, usability and appearance of trails it proves important to understand the implications of creating new Urban Trails. Upon adoption of the Urban Trails Master Plan staff will found an Interdepartmental Agreement (IDA) between the Parks and Recreation Department, Watershed Protection Department, Health and Human Services Department, Austin Police Department and other internal City departments as needed to create an over arching agreement regarding maintenance of Urban Trails. This IDA will address levels of responsibility and will define expectations, contacts and jurisdictions for maintenance.



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"The research that has been conducted, along with anecdotal evidence, suggests that converting an abandoned rail corridor to a trail actually tends to reduce crime by cleaning up the landscape and attracting people who use the trail for recreation and transportation."

- Rails to Trails Safe Communities Study

Maintenance will include:

- ◆ Pavement sweeping
- ◆ Debris removal
- ◆ Shoulder and grass mowing/ weed control
- ◆ Trash disposal
- ◆ Plant trimming
- ◆ Drainage feature cleaning (excluding watershed maintenance areas)
- ◆ Lighting repair (replacement)
- ◆ Furnishing repair
- ◆ Irrigation repair
- ◆ Sign replacement
- ◆ Inspection and monitoring of trees/pruning
- ◆ Pavement repairs
- ◆ Special maintenance: mud removal, fallen trees, debris, graffiti removal, minor bridge repair
- ◆ Trail replacement (anticipated)
- ◆ Safety patrols

Crime on Urban Trails

Research shows that trails do not generate crime. One of the most widely cited studies to date is the Rail-Trails and Safe Communities Study conducted in 1998. Their research provides a comprehensive review of 372 trails, covering 7,000 miles with 45 million estimated users, ultimately finding that while perception of safety proves to be a serious issue for communities building trails, actual crime rates do not increase.¹ The Santa Fe Conservation Trust points out that Urban Trails are "safer places to be on and live near than streets, parking lots, and shopping malls" and that trails should be more associated with preventing death and injury by providing pedestrians and bicyclists

1. Rails-to-Trails Conservancy. 1998. Rail-Trails and Safe Communities: The Experience on 372 Trails. http://www.railstotrails.org/resources/documents/resource_docs/tgc_safecomm.pdf

with safer infrastructure.²

Different strategies for crime prevention and safety include:

- ◆ The Cedar Valley Trails 911 Signs Project in Iowa associated a number with trail segments every 1/10 of one square mile in GIS and integrated this data into the police dispatch center's system so that dispatchers could see" the location on their own GIS computer map.³
- ◆ Partnering with community volunteers to ensure safety. The Met Branch Trail in Northeast Washington, DC teamed with a local citizen-led crime prevention group to help patrol the trail.⁴ To deal with emergency access for a flood-prone segment of the Armstrong Rails-to-Trails nearby residents (14 families) of Rimer, PA, were given keys to gates that block motor vehicle access to trails.⁵
- ◆ The Freedom Park trail system in Williamsburg, Virginia trail provides specifically marked (orange posts with white numbers on red stars) emergency access bail out points along the trail.
- ◆ Crime Prevention Through Environmental Design (CPTED) maintains that the physical design of a building, or in this case an Urban Trail, can help prevent crime.

Safety in Austin

The Austin Police Department has 17,000 acres of park land, 206 designated parks, 12 preserves, 26 greenbelts, 21 recreation centers, 47 pools and over 74 miles of trails to cover in their jurisdiction. Currently, the Austin Police Department has 30 patrol officers that are assigned to Parks Police. As the Urban Trail network expands the rough estimate of patrol officers needed is 2.5 officers per mile. Maintaining this standard would mean:

- ◆ Adding 50 miles of trails would call for an additional 20 officers

2. Santa Fe Conservation Trust. 2010. Neighborhoods and Trails: Why Trails? <http://sfct.org/trails/neighborhoods>

3. Blanshan, Kevin et al. 2005. "Improving Multi-Use Recreational Trail Safety through a Coordinated 911 Sign Project." <http://www.americantrails.org/files/pdf/cedar911signs.pdf>

4. Rails-to-Trails Conservancy. 2012. Case Study: Crime and Urban Pathways. http://www.railstotrails.org/resources/documents/ourWork/PromotingTrailUse/UPI/UPI%20issue%20papers_safety_FINAL_1-26-12.pdf

5. Pedersen, Brad. 2014. "Rimer residents given keys to open trails to vehicles in emergency." *Trib Total Media*. <http://triblive.com/news/armstrong/5982554-74/gates-trail-barriers#axzz33aO9SGbE>



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- ◆ Adding 15 miles of trails would call for an additional 6 officers
- ◆ Adding 10 miles of trails would call for an additional 4 officers

The above numbers do not consider the remoteness of certain trails, however. Different Urban Trails should require different patrolling standards, considering the area and curfew as major factors. The City of Austin will continue to work internally to ensure that as the Urban Trails are constructed, appropriate safety and security measures will be employed.

DRAFT FOR REVIEW

APPENDIX B: PUBLIC INPUT

DRAFT FOR REVIEW



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APPENDIX B

PUBLIC INPUT



Open House held at St. Davids in November 2013. This open house was held in conjunction with an Imagine Austin Speaker Series sponsored by the National Association of City Transportation Officials.

The citizen outreach process was designed to engage all members of the Austin community in developing a plan for Urban Trails. The purpose of citizen input is to learn about how the community uses urban trails, hear feedback on current trails, and gather feedback about the recommendations for the future. After analyzing the input, the community's ideas, recommendations, and preferences for existing and future trails were incorporated into the master plan.

Several tools for engagement were employed to gain a wide perspective on behavior and ideas about bicycling, walking and Urban Trails use in Austin.

PUBLIC INPUT METHODS:

The following tools were used to inform and engage the public about the Austin Urban Trails Master Plan and Bicycle Master Plan update. Because both plans were occurring simultaneously, and both plans work together to create the overall Active Transportation Network, the public input process for both plans also occurred at the same time. The wide variety of methods employed to gain public input provided many outlets for the community to be involved and for the City to achieve broad consensus.

Telephone Survey – A statistically valid telephone survey was conducted of adults 18 years and older within the Austin city limits on bicycle riding behavior. The study was modeled in part after the work of Roger Geller of the Portland, Oregon Bureau of Transportation (2006) and a subsequent study by Professor Jennifer Dill, PhD and Research Associate Nathan McNeil of the Nohad A. Toulon School of Urban Studies and Planning, Portland State University. The design of this research went beyond measuring behaviors and characteristics among cyclists alone to better understand the extent to which the total population of adults in Austin feel about riding a bicycle.

Online Survey – The online survey, which tallied approximately 2,400 responses, aimed to gather information on trail and bicycle use and behavior in Austin to help guide future City of Austin plans and projects that affect users of the Active Transportation Network. This survey was available to anyone who lives in the City of Austin.

Trail Intercept Survey – The intercept survey provided insight into current urban trail use and behavior by surveying trail users around Austin. The intercept survey tool is particularly helpful because it provides specific feedback about the current urban trail network, including potential

improvements and recommendations from trail users.

CAG and TAG – Stakeholders were identified and invited to be a part of the Citizen Advisory Group (CAG). The CAG was involved in the planning process and offered feedback and recommendations. The Technical Advisory Group (TAG) was made up of various employees from City of Austin, Capital Metro, CAMPO and other jurisdictions. The City held special input meetings for the CAG and the TAG to gain feedback on current and proposed trail routes, prioritization and issues of interest or concern.

Public Meetings – The City held public meetings throughout the planning process to inform and engage communities all over the Austin area. The meetings included presentations and informational posters, with City staff members available for questions and comments. The kickoff meeting on November 12, 2013 also featured distinguished speakers from across the U.S. as part of the National Association of City Transportation Officials (NACTO) Cities for Cycling Road Show. In order to reach out to traditionally under-represented communities, the City participated in three events in the spring of 2014 including hosting a Bike Rodeo.

Online Open House – For those who could not attend a public meeting, the content was posted online and included the survey that was distributed at all of the public meetings.

Each component of the public input process provides unique insight for the City and serves to inform the Urban Trails Master Plan. The Telephone Survey explored the opinions of all Austin residents. The results from this study help us understand general perceptions and attitudes about bicycling in Austin. The Intercept and Online surveys represent current users in Austin. Comments from the CAG and TAG provide more detailed, technical feedback. The input from public meetings helped identify specific routes, and overall feedback on the Urban Trail Network.

PUBLIC INPUT FINDINGS:

The Telephone survey provides information concerning bicycling preferences and opinions for the whole community of Austin. By surveying a statistically valid sample size, we learned about general bicycle riding behavior including average distance per bicycle ride, frequency of riding, level of interest in riding more, age and gender of



In total, 6 public meetings were held during the planning process in central, north, south and east Austin.



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41% of adults and over
75% of kids ride bicycles in
Austin

23% of adults ride a bicycle
often
3% ride daily

54% of people in Austin
want to ride more

current bicyclists, and people's comfort levels on riding a bicycle in Austin. We found that 41% of adults in Austin currently ride a bicycle and over 75% of kids ride bicycles. This means that almost half of the population in Austin 18 years and up own a bicycle and ride it anywhere from a few days a year to every day. About 23% of adults in Austin ride a bicycle often and 3% ride daily. While the majority of adults in Austin are not riding a bicycle, 54% expressed they want to ride more. The majority of Austinites are interested in riding a bicycle yet only a quarter of the population ride a bicycle often.

The Four Types of Bicyclists

The Telephone Survey used a method of classification popularized in Portland, OR to describe the types of bicyclists in the Austin community. The "Four Types" tool reveals that most people in Austin do not feel comfortable riding in a traditional striped bicycle lane. However, the majority of the population would feel comfortable riding on an Urban Trail. Understanding how Austinites feel about bicycle infrastructure is the key to a successful Active Transportation Network. The majority of the population in Austin is interested in riding a bicycle yet less than 20% are comfortable riding in on-street bicycle lanes. Over 55% of people in Austin want some form of separation between their bicycle facilities and on-street traffic.

Table B.1 Summary of Bicyclists in Austin

Strong & Fearless	Very comfortable without bike lanes	2%
Enthusied & Confident	Very comfortable with bike lanes	15%
Interested but Concerned	Not very comfortable, interested in bicycling more/ Not very comfortable, currently bicycling, not interested in bicycling more	39%
No Way No How	Physically unable/ Very uncomfortable on paths/ Not very comfortable, not interested in bicycling more, not currently bicycling	44%

We asked about the main barriers preventing Austinites from riding a bicycle. The deterrents differed between the general population and those that are already enthused and confident bicycle riders. However, both groups identified lack adequate infrastructure and feeling uncomfortable on the road as barriers to riding more often.

Top 7 barriers preventing all people from riding a bicycle are:

- Weather is too hot (75%)
- Destinations too far (52%)
- You do not feel safe (46%)
- Bicycle lanes, trails are not connected (44%)
- Lack of shade (40%)
- Bicycle lanes, trails are not available (40%)
- Takes too long (38%)

Top 7 barriers preventing current bicyclists from riding more:

- Bicycle lanes, trails or paths are not connected (82%)
- Bicycle lanes, trails or paths are not available (68%)
- You do not feel safe (61%)
- Existing bikeways are in poor condition (47%)
- No showers or place to freshen up at your destination (46%)
- Weather is too hot (44%)
- Lack of secure bicycle parking (44%)

While there may not be much to do about the weather being too hot, adding shade along the routes and places for users to rest along the way could encourage more people to brave the heat. While we cannot directly address the problem of destinations being too far away, expanding and connecting the urban trails network and providing seamless access to transit may address issues of distance and time. Perhaps the most addressable barriers for all residents, current cyclists or not, are those concerning safety, connectivity and accessibility.

The statistically valid telephone survey revealed that the majority of Austinites feel unsafe riding in a traditional striped bicycle lane but would ride on a separated path. The bicycle community shares this sentiment, with the majority feeling somewhat uncomfortable riding in a striped bicycle lane and nearly 100% consensus on feeling very safe riding on a separated path. People in Austin are interested in riding a bicycle or riding more often but they are concerned for their safety. Investing in bicycle infrastructure that provides a physical barrier between users and on-street motor vehicle traffic provides a sense of security that encourages more residents to get on a bicycle.

41% of bicyclists in Austin are female and 59% are male. This represents a very even gender ratio compared to other cities in the U.S., including Portland where only 31% of bicyclists are female. Many researchers in the U.S. declare women as good "indicator species" for the success of bicycle policies (Szczepanski, 2013). In countries with more developed bicycle infrastructure, like Germany or the Netherlands, the ratio of men and women bicyclists is about even (Baker, 2009).





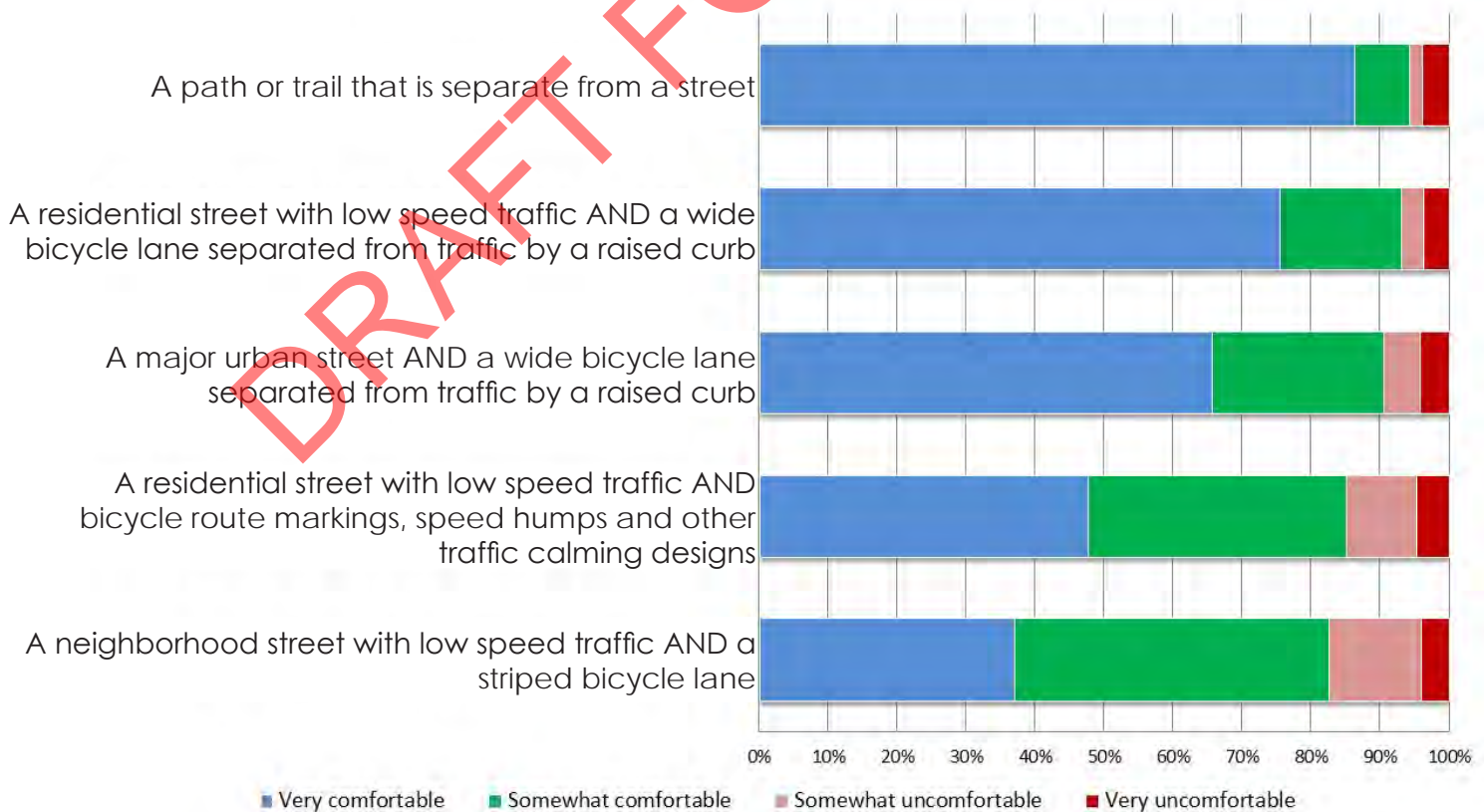
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The **Online survey** was available to all residents in Austin and gathered the opinions and preferences of current bicycling and trail use behavior. The goal of this 24 question survey was to learn about general use, demographics, preferences, and opinions regarding trail features and potential improvements.

The Online survey revealed that 96% of survey participants want to travel by bicycle more than they currently do. The main issues holding them back are a lack of adequate infrastructure and safety. As discussed previously, the barriers preventing people from riding a bicycle or riding more often can be largely addressed through better connectivity and safer bicycle infrastructure. Mirroring the results of the Telephone survey, the vast majority of the bicycle community in Austin would feel the safest riding on a separated path than any other type of bicycle facility. Their top three responses were nearly the same as those from the Telephone Survey. This means that the general public in Austin and the local bicycling community both regard an Urban Trail as the safest, most comfortable type of bicycle infrastructure.

TOP SCENARIO PREFERENCES FOR RIDING A BICYCLE

As identified by the Online Survey

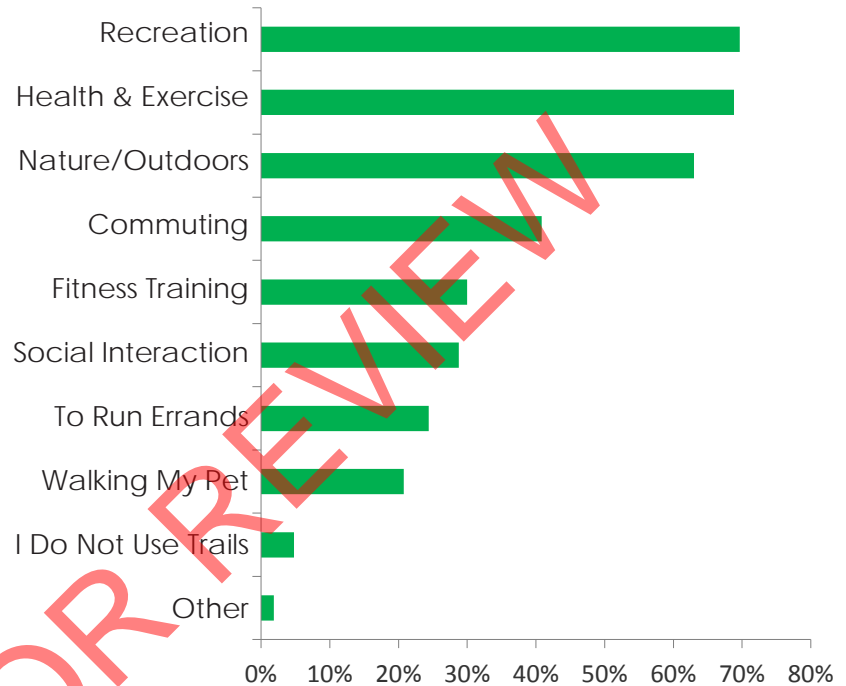


61% of Online respondents use the trails during the week and weekends, 21% typically use the trails only during the weekends and 6% generally use the trails only during the week. The number one reason users get on the trail is for recreation and 41% report they use the trails for commuting. The two peak periods of use throughout the day are mornings and evenings: 62% report using the trails from 6:00 AM to noon, and 54% report using the trails between 5:00 PM to 10:00 PM.

Participants provided feedback about the on-street and off-street network. They were asked to rank a list of potential improvements to the Urban Trails in terms of importance. The top five are listed below.

GENERAL USE OF TRAILS

As identified by the Online Survey



TOP 5 MOST IMPORTANT ACTIONS TO IMPROVE URBAN TRAILS

As identified by the Online Survey

1. Improve access to the trails from nearby neighborhoods or businesses
2. Add lighting for evening use along some sections of trails
3. Trim landscaping and obstructions to improve sight lines
4. Create separate areas for walkers and bicycle riders
5. Improve the smoothness of trails



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Intercept survey along Shoal Creek Trail near 3rd Street

The Intercept survey explored behavior and habits of current trail users. Most people use the trails on both weekdays and weekends to run/jog or ride a bicycle. The top three reasons for using the trails are health and exercise, enjoying nature/being outdoors, and recreation. The most popular time of day is in the morning (6:00 AM to noon), though 44% of the surveyed trail users report they use the trails in the evenings (5:00 PM to 10:00 PM). The top two ways users access the trails are by bicycle and by car (single occupancy vehicle). They typically use the trails a few times per week and about a third say they get on a trail every day.

Trail users were asked to give feedback about trail features including trail width, surface quality, cleanliness, amenities such as drinking fountains, adequate signage for safety or information, ease of access from nearby neighborhoods and overall trail maintenance. They ranked the trails from best aspects to features that need improvement. The top three choices are shown in the chart below. Intercept survey respondents also ranked potential trail improvements from most important to least important.

Respondents' top three choices for most and least important are shown in order in the chart to the left. For most important potential trail

BEST TRAIL FEATURES	NEEDS IMPROVEMENT
Feels safe, sense of security	Has adequate amenities such as drinking fountains
Ease of access to the trail from nearby neighborhoods or businesses	Has adequate information and directional signs
Quality of the trail surface	Is adequately signed for safety

MOST IMPORTANT POTENTIAL TRAIL IMPROVEMENTS	LEAST IMPORTANT POTENTIAL TRAIL IMPROVEMENTS
Create separate areas for walkers and bicycle riders	Provide more benches and resting areas
Add lighting for evening use along some sections of the trail	Trim landscaping and obstructions to improve sight lines
Provide more shade and Provide more drinking fountains	Add more information and directional signs

improvements "Provide more shade" tied with "Provide more drinking fountains" for third most important.

This feedback is very helpful for understanding how people use the trails, what they like about them and what they would like to see changed. The results of the intercept survey were used to inform the recommendations for the Urban Trails Master Plan.

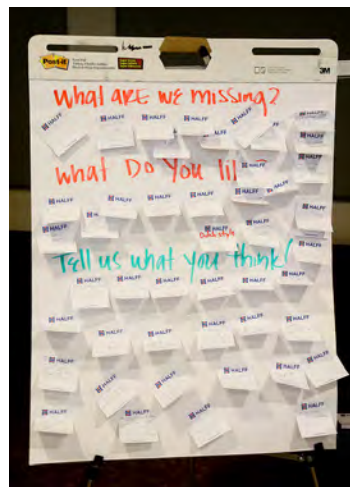
The **CAG** and the **TAG** helped modify proposed trail corridors and made recommendations for trail standards. A major interest of the CAG was preserving the environment in particularly sensitive or underdeveloped areas. Future trails should be built close to developed land and when traveling along watersheds or creeks should use minimal, low-level lighting so as not to disturb the wildlife. The TAG provided insight on feasibility of certain route segments. Members from other transportation organizations like CAMPO contributed information about projects and developments that may affect the trail system or potential corridors. These meetings were held in the early phase of the planning process. The input from the CAG and TAG informed the maps and recommendations that were presented at the public meetings weeks later.

The first **public meeting** was held on November 12, 2013 and included three presentations from bicycle transportation leaders from Portland, Chicago, and New York City. The City of Austin teamed with the National Association of City Transportation Officials (NACTO) to present a Cities for Cycling Road Show and Open House. Guest speakers presented on their city's progress in bicycle infrastructure and the City of Austin presented on our progress, describing the impact of the Green Lanes Project, the Dutch Cycling Embassy Think Bicycle Workshop, and plans to improve local active transportation infrastructure.

All the public meetings included informational posters, brief presentations and City staff on hand for questions and comments. The posters included descriptions about the various types of bicycle and urban trail facilities, maps of facilities including proposed routes and interactive boards. Using sticker dots participants could identify where they go in the City, vote on the facility they liked the best, mark on the maps, and leave comments.

Participants were encouraged to leave sticky notes with recommendations and feedback about the trails. With over 100 sticky note comments, the feedback ranged from general points like "More off street trails/paths for families with young kids" to specific ones like "Redevelopment of Oltorf between Burleson and Pleasant."

Comments received during one of the public meetings in November 2013.



Open House participants at St. David's give feedback on bicycle and urban trail recommendations



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Young participants learn about safety at the bicycle rodeo on Saturday, February 22, 2014

The visual preference poster invited people to place a dot next to a picture of the bicycle facility they would be most comfortable riding on (shown to the left). This exercise revealed that most people want some sort of separation between themselves and on-street traffic. When asked about the most important actions to improve Urban Trails the top three responses were 1. Improve access to trails from nearby neighborhoods or businesses, 2. Improve smoothness of trail, and 3. Widen trail surface.

Additional public meetings were held in East Austin to encourage traditionally under-represented communities to learn about the Urban Trails Master Plan and provide input. East Austin is a historically low-income, minority area of Austin. The same information was presented at these three targeted public meetings. One of the meetings also included a bicycle rodeo, where the local non-profit Ghisallo Foundation taught kids the basics of urban riding while the Yellow Bike Project provided free bicycle repair. At these targeted meetings, the top three responses for improving the Urban Trails were similar to the other meetings and surveys, comprising of: 1. Improve access to trails from nearby neighborhoods or businesses, 2. Create separate areas for walkers and bicycle riders, and 3. Widen trail surface.

The **Online Open House** provided all the informational posters and survey questions for interested citizens who could not attend the public meetings. Their top three recommendations for improving Urban Trails were different, comprising of 1. Create separate areas for walkers and bicycle riders, 2. Improve access to trails from nearby neighborhoods or businesses, and 3. Add lighting as appropriate.

SUMMARY OF PUBLIC INPUT:

We learned that:

- ◆ 41% of adults and 75% of kids ride bicycles in Austin
- ◆ The majority of people in Austin want to ride more than they currently do
- ◆ The majority of residents and current bicyclists do not feel comfortable in a traditional bicycle lane but would feel very comfortable riding on a separated path
- ◆ People in Austin are much more willing to ride a bicycle if there is some sort of separation between themselves and on-street traffic
- ◆ The main barriers preventing people from riding a bicycle are:
 - Weather is too hot
 - Destinations are too far
 - Do not feel safe
 - Bicycle lanes or trails are not connected
 - Bicycle lanes or trails are not available
 - Existing bikeways are in poor condition
 - No showers or place to freshen up at destination
- ◆ Most people use the trails to jog/run or ride a bicycle
- ◆ The two peak time periods for trail use is in the mornings between 6:00 AM and 12:00 noon and in the evenings between 5:00 PM and 10:00 PM
- ◆ The majority of trail users get on a trail throughout the week and weekends, though the weekends are more popular
- ◆ The most important actions to improve Urban Trails are:
 - Improve access to trails from nearby neighborhoods or businesses
 - Improve smoothness of trail
 - Widen trail surface
 - Create separate areas for walkers and bicycle riders
 - Add lighting as appropriate
 - Provide more shade
 - Provide more drinking fountains
 - Trim landscaping and obstructions to improve sight lines

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APPENDIX C: PRIORITIZATION SCORING

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AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Butler Trail Upgrade
Trail Location (from, to): Along Lady Bird Lake
Length (miles): 1.5 miles
Evaluation Rating: 1

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
<input type="checkbox"/> Route does not follow a watershed or environmentally sensitive area	3	3	0	
<input type="checkbox"/> Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	6	
<input type="checkbox"/> Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
<input type="checkbox"/> Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
			Total	6
Demonstrated Citizen Support (select one)				
<input type="checkbox"/> Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
<input type="checkbox"/> Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
<input type="checkbox"/> Support or opposition for the corridor has not been received at master planning level	1	3	0	
<input type="checkbox"/> Specific opposition to some portion of the corridor has been received	0	3	0	
			Total	9
Corridor Availability (select one)				
<input type="checkbox"/> Majority owned or controlled by the City of Austin, can be developed as trail	3	2	6	
<input type="checkbox"/> Controlled by other entity, potential for trail development	2	2	0	
<input type="checkbox"/> Privately owned but not developed, potential trail opportunity	1	2	0	
<input type="checkbox"/> Not readily available, significant blockages or private development along corridor	0	2	0	
			Total	6
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
<input type="checkbox"/> Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
<input type="checkbox"/> Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
<input type="checkbox"/> Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
			Total	2
Importance to Regional Transit Connectivity (select one)				
<input type="checkbox"/> Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
<input type="checkbox"/> Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
<input type="checkbox"/> Corridor improves connections to area bus service	1	2	0	
<input type="checkbox"/> Corridor has no adjacent connections to existing or planned transit	0	2	0	
			Total	4
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
<input type="checkbox"/> Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
<input type="checkbox"/> Corridor has at least one connection to a key neighborhood destination	1	2	0	
<input type="checkbox"/> Corridor provides no connections to area neighborhood destinations	0	2	0	
			Total	4
Area Population Served (select one)				
<input type="checkbox"/> Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	6	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
<input type="checkbox"/> Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
			Total	6
Constructability / Ease of Development (select one)				
<input type="checkbox"/> Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	4	
<input type="checkbox"/> Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
<input type="checkbox"/> Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
			Total	4
Scenic/Aesthetic Quality of Corridor (select one)				
<input type="checkbox"/> Highly scenic corridor, unique natural or urban characteristics	2	1	2	
<input type="checkbox"/> Corridor has minimal scenic appeal	0	1	0	
			Total	2
First in its Area of the City (select one)				
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
<input type="checkbox"/> Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
			Total	1
			Grand Total	44
				Out of 50

AUSTIN URBAN TRAILS MASTER PLAN



Urban Trail Name: Cap Metro (Central)
 Trail Location (from, to): Rutland Dr to 51st St
 Length (miles): 5 miles
 Evaluation Rating: 1

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			9	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	6	
Controlled by other entity, potential for trail development	2	2	0	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			6	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			4	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	4	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
Corridor has at least one connection to a key neighborhood destination	1	2	0	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			4	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	6	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			6	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			45	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Cap Metro (North)
Trail Location (from, to): Walnut Creek to Rutland Dr
Length (miles): 2 miles
Evaluation Rating: 1

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			9	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	6	
Controlled by other entity, potential for trail development	2	2	0	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			6	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			4	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	4	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
Corridor has at least one connection to a key neighborhood destination	1	2	0	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			4	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	6	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			6	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			45	Out of 50

AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Cap Metro (South)
 Trail Location (from, to): 51st St to LAB
 Length (miles): 3 miles
 Evaluation Rating: 1

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			9	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	6	
Controlled by other entity, potential for trail development	2	2	0	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			6	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			4	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	4	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
Corridor has at least one connection to a key neighborhood destination	1	2	0	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			4	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	6	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			6	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			45	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Country Club Trail
Trail Location (from, to): Lady Bird Lake to Burleson Rd
Length (miles): 2.5 Miles
Evaluation Rating: 1

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
<input type="checkbox"/> Route does not follow a watershed or environmentally sensitive area	3	3	0	
<input type="checkbox"/> Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	6	
<input type="checkbox"/> Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
<input type="checkbox"/> Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			6	
Demonstrated Citizen Support (select one)				
<input type="checkbox"/> Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
<input type="checkbox"/> Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
<input type="checkbox"/> Support or opposition for the corridor has not been received at master planning level	1	3	0	
<input type="checkbox"/> Specific opposition to some portion of the corridor has been received	0	3	0	
Total			9	
Corridor Availability (select one)				
<input type="checkbox"/> Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
<input type="checkbox"/> Controlled by other entity, potential for trail development	2	2	4	
<input type="checkbox"/> Privately owned but not developed, potential trail opportunity	1	2	0	
<input type="checkbox"/> Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
<input type="checkbox"/> Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
<input type="checkbox"/> Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
<input type="checkbox"/> Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			4	
Importance to Regional Transit Connectivity (select one)				
<input type="checkbox"/> Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	4	
<input type="checkbox"/> Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
<input type="checkbox"/> Corridor improves connections to area bus service	1	2	0	
<input type="checkbox"/> Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
<input type="checkbox"/> Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
<input type="checkbox"/> Corridor has at least one connection to a key neighborhood destination	1	2	0	
<input type="checkbox"/> Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			4	
Area Population Served (select one)				
<input type="checkbox"/> Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	6	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
<input type="checkbox"/> Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			6	
Constructability / Ease of Development (select one)				
<input type="checkbox"/> Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
<input type="checkbox"/> Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
<input type="checkbox"/> Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
<input type="checkbox"/> Highly scenic corridor, unique natural or urban characteristics	2	1	2	
<input type="checkbox"/> Corridor has minimal scenic appeal	0	1	0	
Total			2	
First in its Area of the City (select one)				
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
<input type="checkbox"/> Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			42	Out of 50

AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Mueller Perimeter Trail
 Trail Location (from, to): All outside trails of Mueller
 Length (miles): 5 miles
 Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	6	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			6	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	4	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
Corridor has at least one connection to a key neighborhood destination	1	2	2	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	6	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			6	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	2	
Corridor has minimal scenic appeal	0	1	0	
Total			2	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			38	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Onion Creek

Trail Location (from, to): Along Creek from Austin Bergstrom to 135

Length (miles): 10 miles

Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
<input type="checkbox"/> Route does not follow a watershed or environmentally sensitive area	3	3	0	
<input type="checkbox"/> Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
<input type="checkbox"/> Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
<input type="checkbox"/> Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
			Total	3
Demonstrated Citizen Support (select one)				
<input type="checkbox"/> Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
<input type="checkbox"/> Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
<input type="checkbox"/> Support or opposition for the corridor has not been received at master planning level	1	3	0	
<input type="checkbox"/> Specific opposition to some portion of the corridor has been received	0	3	0	
			Total	9
Corridor Availability (select one)				
<input type="checkbox"/> Majority owned or controlled by the City of Austin, can be developed as trail	3	2	6	
<input type="checkbox"/> Controlled by other entity, potential for trail development	2	2	0	
<input type="checkbox"/> Privately owned but not developed, potential trail opportunity	1	2	0	
<input type="checkbox"/> Not readily available, significant blockages or private development along corridor	0	2	0	
			Total	6
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
<input type="checkbox"/> Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
<input type="checkbox"/> Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
<input type="checkbox"/> Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
			Total	4
Importance to Regional Transit Connectivity (select one)				
<input type="checkbox"/> Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
<input type="checkbox"/> Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
<input type="checkbox"/> Corridor improves connections to area bus service	1	2	0	
<input type="checkbox"/> Corridor has no adjacent connections to existing or planned transit	0	2	0	
			Total	4
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
<input type="checkbox"/> Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
<input type="checkbox"/> Corridor has at least one connection to a key neighborhood destination	1	2	0	
<input type="checkbox"/> Corridor provides no connections to area neighborhood destinations	0	2	0	
			Total	4
Area Population Served (select one)				
<input type="checkbox"/> Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	2	
<input type="checkbox"/> Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
			Total	2
Constructability / Ease of Development (select one)				
<input type="checkbox"/> Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
<input type="checkbox"/> Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
<input type="checkbox"/> Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
			Total	0
Scenic/Aesthetic Quality of Corridor (select one)				
<input type="checkbox"/> Highly scenic corridor, unique natural or urban characteristics	2	1	2	
<input type="checkbox"/> Corridor has minimal scenic appeal	0	1	0	
			Total	2
First in its Area of the City (select one)				
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	2	
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	0	
<input type="checkbox"/> Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
			Total	2
			Grand Total	36
				Out of 50

AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: 51st St.
 Trail Location (from, to): Mueller to HWY 183
 Length (miles): 1.5 miles
 Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	6	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			6	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	6	
Controlled by other entity, potential for trail development	2	2	0	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			6	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
Corridor has at least one connection to a key neighborhood destination	1	2	2	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	6	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			6	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			38	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Railroad Corridor
Trail Location (from, to): Airport to U.P. Corridor South
Length (miles): 6 Miles
Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	6	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			6	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	0	
Privately owned but not developed, potential trail opportunity	1	2	2	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			2	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
Corridor has at least one connection to a key neighborhood destination	1	2	0	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			4	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	2	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			2	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			32	Out of 50

AUSTIN URBAN TRAILS MASTER PLAN



Urban Trail Name: Shoal Cree Extension
 Trail Location (from, to): 24th St. to HWY 183
 Length (miles): 7 Miles
 Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	0	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			3	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			9	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	4	Creek controlled by City, but narrow corridor in some areas
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			4	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	4	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
Corridor has at least one connection to a key neighborhood destination	1	2	0	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			4	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	4	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			4	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			35	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: U.P. Corridor (South)
Trail Location (from, to): Lady Bird Lake to Manchaca
Length (miles): 10 Miles
Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	6	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			6	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	6	
Controlled by other entity, potential for trail development	2	2	0	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			6	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	4	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
Corridor has at least one connection to a key neighborhood destination	1	2	2	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	4	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			4	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			0	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			34	Out of 50

AUSTIN URBAN TRAILS MASTER PLAN



Urban Trail Name: U.P./Mopac North
 Trail Location (from, to): Parallel with Mopac
 Length (miles): 5 Miles
 Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	9	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	0	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			9	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	9	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			9	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	4	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			4	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
Corridor has at least one connection to a key neighborhood destination	1	2	2	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	4	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			4	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			2	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	0	
Corridor has minimal scenic appeal	0	1	0	
Total			0	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			39	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Walnut Creek (Central)
Trail Location (from, to): North Walnut Creek Trail to East 290
Length (miles): 6.5 Miles
Evaluation Rating: 2

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	0	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			3	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	6	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			6	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	4	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	4	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	0	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			4	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	4	
Corridor has at least one connection to a key neighborhood destination	1	2	0	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			4	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	2	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			2	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			0	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	2	
Corridor has minimal scenic appeal	0	1	0	
Total			2	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	2	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	0	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			2	
Grand Total			31	Out of 50

AUSTIN URBAN TRAILS MASTER PLAN



Urban Trail Name: Slaughter Creek
 Trail Location (from, to): Onion Creek to South U.P. Corridor Trail
 Length (miles): 5.5 miles
 Evaluation Rating: **3**

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	0	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			3	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
Support or opposition for the corridor has not been received at master planning level	1	3	3	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			3	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	4	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
Corridor improves connections to area bus service	1	2	2	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			2	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
Corridor has at least one connection to a key neighborhood destination	1	2	2	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	2	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			2	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			0	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	2	
Corridor has minimal scenic appeal	0	1	0	
Total			2	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			21	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Williamson Creek

Trail Location (from, to): Along creek from Onion Creek to South Manchaca

Length (miles): 3 miles

Evaluation Rating: 3

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
<input type="checkbox"/> Route does not follow a watershed or environmentally sensitive area	3	3	0	
<input type="checkbox"/> Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
<input type="checkbox"/> Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
<input type="checkbox"/> Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
			Total	3
Demonstrated Citizen Support (select one)				
<input type="checkbox"/> Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
<input type="checkbox"/> Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	6	
<input type="checkbox"/> Support or opposition for the corridor has not been received at master planning level	1	3	0	
<input type="checkbox"/> Specific opposition to some portion of the corridor has been received	0	3	0	
			Total	6
Corridor Availability (select one)				
<input type="checkbox"/> Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
<input type="checkbox"/> Controlled by other entity, potential for trail development	2	2	4	
<input type="checkbox"/> Privately owned but not developed, potential trail opportunity	1	2	0	
<input type="checkbox"/> Not readily available, significant blockages or private development along corridor	0	2	0	
			Total	4
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
<input type="checkbox"/> Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
<input type="checkbox"/> Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
<input type="checkbox"/> Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
			Total	2
Importance to Regional Transit Connectivity (select one)				
<input type="checkbox"/> Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
<input type="checkbox"/> Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
<input type="checkbox"/> Corridor improves connections to area bus service	1	2	0	
<input type="checkbox"/> Corridor has no adjacent connections to existing or planned transit	0	2	0	
			Total	4
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
<input type="checkbox"/> Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
<input type="checkbox"/> Corridor has at least one connection to a key neighborhood destination	1	2	2	
<input type="checkbox"/> Corridor provides no connections to area neighborhood destinations	0	2	0	
			Total	2
Area Population Served (select one)				
<input type="checkbox"/> Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	2	
<input type="checkbox"/> Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
			Total	2
Constructability / Ease of Development (select one)				
<input type="checkbox"/> Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
<input type="checkbox"/> Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	2	
<input type="checkbox"/> Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
			Total	2
Scenic/Aesthetic Quality of Corridor (select one)				
<input type="checkbox"/> Highly scenic corridor, unique natural or urban characteristics	2	1	2	
<input type="checkbox"/> Corridor has minimal scenic appeal	0	1	0	
			Total	2
First in its Area of the City (select one)				
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
<input type="checkbox"/> Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
			Total	1
			Grand Total	28
				Out of 50

AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Little Walnut Creek (South)
 Trail Location (from, to): I35 to 290 East
 Length (miles): 2.5 miles
 Evaluation Rating: **3**

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	0	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			3	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
Support or opposition for the corridor has not been received at master planning level	1	3	3	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			3	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	4	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
Corridor improves connections to area bus service	1	2	0	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
Corridor has at least one connection to a key neighborhood destination	1	2	2	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	4	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			4	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			0	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	2	
Corridor has minimal scenic appeal	0	1	0	
Total			2	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			25	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

Urban Trail Name: Little Walnut Creek (North)
Trail Location (from, to): Cap Metro Central to I35
Length (miles): 2.5 miles
Evaluation Rating: **3**

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
<input type="checkbox"/> Route does not follow a watershed or environmentally sensitive area	3	3	0	
<input type="checkbox"/> Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
<input type="checkbox"/> Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
<input type="checkbox"/> Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			3	
Demonstrated Citizen Support (select one)				
<input type="checkbox"/> Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
<input type="checkbox"/> Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	0	
<input type="checkbox"/> Support or opposition for the corridor has not been received at master planning level	1	3	3	
<input type="checkbox"/> Specific opposition to some portion of the corridor has been received	0	3	0	
Total			3	
Corridor Availability (select one)				
<input type="checkbox"/> Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
<input type="checkbox"/> Controlled by other entity, potential for trail development	2	2	4	
<input type="checkbox"/> Privately owned but not developed, potential trail opportunity	1	2	0	
<input type="checkbox"/> Not readily available, significant blockages or private development along corridor	0	2	0	
Total			4	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
<input type="checkbox"/> Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
<input type="checkbox"/> Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
<input type="checkbox"/> Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
<input type="checkbox"/> Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
<input type="checkbox"/> Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	4	
<input type="checkbox"/> Corridor improves connections to area bus service	1	2	0	
<input type="checkbox"/> Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			4	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
<input type="checkbox"/> Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
<input type="checkbox"/> Corridor has at least one connection to a key neighborhood destination	1	2	2	
<input type="checkbox"/> Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
<input type="checkbox"/> Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	4	
<input type="checkbox"/> Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	0	
<input type="checkbox"/> Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			4	
Constructability / Ease of Development (select one)				
<input type="checkbox"/> Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
<input type="checkbox"/> Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
<input type="checkbox"/> Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			0	
Scenic/Aesthetic Quality of Corridor (select one)				
<input type="checkbox"/> Highly scenic corridor, unique natural or urban characteristics	2	1	2	
<input type="checkbox"/> Corridor has minimal scenic appeal	0	1	0	
Total			2	
First in its Area of the City (select one)				
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
<input type="checkbox"/> Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
<input type="checkbox"/> Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			25	Out of 50

AUSTIN URBAN TRAILS MASTER PLAN



Urban Trail Name: 2222
 Trail Location (from, to): 360 to Mopac
 Length (miles): 3.5 miles
 Evaluation Rating: 4

Criteria	Points	Multiplier	Score	Comments
Environmental Considerations (select one)				
Route does not follow a watershed or environmentally sensitive area	3	3	0	
Route is in fringe area of environmentally sensitive area, has potential alignment flexibility to minimize impact on drainage, vegetation and habitat	2	3	0	
Route is in an environmentally sensitive area, has some potential alignment flexibility to minimize impact on drainage, vegetation and habitat	1	3	3	
Corridor constraints impact existing trees, area with erosion impact or requires variance for proximity to a key drainage corridor	-3	3	0	
Total			3	
Demonstrated Citizen Support (select one)				
Corridor support is noted as part of an ongoing or adopted neighborhood plan, other previous plans, or noted in public involvement phase of UTMP	3	3	0	
Corridor support has been noted in other public process or as part of the public involvement phase of the UTMP, but is not currently in any adopted plan	2	3	6	
Support or opposition for the corridor has not been received at master planning level	1	3	0	
Specific opposition to some portion of the corridor has been received	0	3	0	
Total			6	
Corridor Availability (select one)				
Majority owned or controlled by the City of Austin, can be developed as trail	3	2	0	
Controlled by other entity, potential for trail development	2	2	0	
Privately owned but not developed, potential trail opportunity	1	2	0	
Not readily available, significant blockages or private development along corridor	0	2	0	
Total			0	
Connectivity to On-Street Pedestrian and Planned Bicycle Network (select one)				
Corridor has multiple connections to the surrounding on-street bicycle and sidewalk network (3 or more per mile)	2	2	0	
Corridor has at least one connection (per mile) to the surrounding on-street bicycle and sidewalk network	1	2	2	
Corridor has no connections to the surrounding on-street bicycle and/or sidewalk network (can only be accessed from parkland or private development)	0	2	0	
Total			2	
Importance to Regional Transit Connectivity (select one)				
Corridor has multiple adjacent connections to existing rail or bus rapid transit (4 or more)	2	2	0	
Corridor has potential connections to future rail, streetcar or bus rapid transit (2 or more)	2	2	0	
Corridor improves connections to area bus service	1	2	2	
Corridor has no adjacent connections to existing or planned transit	0	2	0	
Total			2	
Enhances Local Connectivity - Parks, Schools, Civic Facilities, Neighborhood Retail / Entertainment (select one)				
Corridor provides direct or improved connections to multiple key neighborhood destinations	2	2	0	
Corridor has at least one connection to a key neighborhood destination	1	2	2	
Corridor provides no connections to area neighborhood destinations	0	2	0	
Total			2	
Area Population Served (select one)				
Population within 1 mile radius from the trail exceeds 50,000 residents for every mile of trail	3	2	0	
Population within 1 mile from the trail exceeds 25,000 residents for every mile of trail	2	2	0	
Population within 1 mile from the trail exceeds 10,000 residents for every mile of trail	1	2	2	
Population within 1 mile from the trail is less than 10,000 residents for every mile of trail	0	2	0	
Total			2	
Constructability / Ease of Development (select one)				
Corridor is generally easy to build in, and potentially requires no more than two to three major areas with major structural requirements	2	2	0	
Corridor has some potential access and corridor width constraints, three to five areas that may require significant structural solutions	1	2	0	
Corridor has significant access, slope, corridor width constraints, significant areas that may require structural solutions	0	2	0	
Total			0	
Scenic/Aesthetic Quality of Corridor (select one)				
Highly scenic corridor, unique natural or urban characteristics	2	1	2	
Corridor has minimal scenic appeal	0	1	0	
Total			2	
First in its Area of the City (select one)				
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 5 miles of the proposed corridor	2	1	0	
Urban trail corridor, when developed, will be the first significant corridor in that part of the City. No other significant urban trails exist within 3 miles of the proposed corridor	1	1	1	
Other existing urban trail corridors exist near to the proposed corridor, and the new corridor does not significantly improve connectivity in the area	0	1	0	
Total			1	
Grand Total			20	Out of 50



AUSTIN URBAN TRAILS MASTER PLAN

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